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Maximum
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Gapop 10.0 ,
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Match
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Listing
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first 45 summaries
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               AAB85347
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Compugen Ltd.
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Peptide
The invention relates to novel human sperm specific surface proteins, C7/8, SAMP32 and C58. The proteins, nucleic acids encoding the sperm specific surface proteins and antibodies specific for the proteins are useful for making contraceptive compositions including contraceptive vaccines. The vaccines produced by the invention are hoped to be more effective than previous contraceptive vaccines which only caused 75%
                                                                                                                       New human sperm surface proteins contraceptive vaccines.
                                                                                             Claim 20; Page 60-61; 63pp; English.
                                                                                                                                                               WPI; 2001-451902/48
N-PSDB; AAH22952, AJ
                                                                                                                                                                                                                                                             19-JAN-2000;
                                                                                                                                                                                                                                                                                         19-JAN-2001; 2001WO-US001717
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                                                                                                                                                                                                                                                                                                                                                                                                    Domain
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ne; antifertility; spermicide.
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                                                                                                                                                                                                                                                              2000US-0176885P.
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                                                                                                                                                                  AAH22953.
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Best Local S
Matches 124
                     The invention relates to full length GENSET human nucleic acids encoding potentially secreted proteins. The nucleic acids and the polypeptides they encode may be used in the prevention, treatment and diagnosis of diseases associated with inappropriate GENSET gene expression. For example, they be used to treat disorders associated with decreased GENSET gene expression by rectifying mutations or deletions in a patient's genome that affect the activity of GENSET or by supplementing the patients own production of GENSET polypeptides. Conversely, antisense nucleic acid molecules may be administered to down regulate GENSET expression. The sense and antisense nucleic acids may also be used as DNA probes in diagnostic assays to detect and quantitate the presence of similar nucleic acids sequences in samples, and hence to determine which
                                                                                                                                                                                                                                   Full length GENSET human nucleic acids encoding potentially secreted proteins, useful in gene therapy and vaccination against a variety o diseases, and for diagnosis of those diseases.
                                                                                                                                                                                                             Claim
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06-MAR-2000; 2000US-0187470P
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                                                                                                                                                                                                            21; Page 807; 921pp; English.
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            need
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             restorative
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Pred. No. 2.3
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            polypeptides
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Best Local S
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28-NOV-2000;
01-DEC-2000;
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28-FEB-2001;
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10-MAY-2001;
                                                                                                                                     22-AUG-2000;
23-AUG-2000;
24-AUG-2000;
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01-AUG-2000;
                                                                                                                                                                                                                   25-JUL-2000;
25-JUL-2000;
                                                                                                                                                                                                                                                                                                                                                                                                   Human; secreted protein; PRO; tumour; lung cancer; colon cancer; breast cancer; prostate tumour; rectal tumour; liver tumour; pericyte cell proliferation; chondrocyte cell proliferation; tumour necrosis factor-alpha.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAU83605 standard; protein; 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    may be used as antigens in the production of antibodies and in assays identify modulators (agonists and antagonists) of GENSET polypeptide expression and activity. The present sequence is a GENSET polypeptide
                                                                                                                                                                                                                                           25-JUL-2000;
                                                                                                                                                                                                                                                                                                            29-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human PRO protein,
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           2000US-022063BP
2000US-02206664P
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2000US-022425P
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2000WG-US033646P
2000WG-US032678
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2000US-0220624P.
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Pred. No. 2.3e-54;
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Best Local (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       stimulating the release of tumour necrosis factor-alpha from human blood, for stimulating or inhibiting the proliferation of normal human dermal fibroblast cells. The PRO polypeptide may also be used as molecular weight markers and for tissue typing. The PRO nucleic acids have applications in molecular biology, including use as hybridisation probes, and in chromosome and gene mapping. AAU83592-AAU83713 represent human PRO protein sequences of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The invention relates to one hundred and twenty two nucleic acids encoding PRO polypuptides. The sequences of the 122 PRO polypucleotides encode human secreted proteins. The PRO nucleic acids, polypeptides, agonists and antagonists are useful for treating a PRO related disorder. The PRO polypeptides are useful for diagnosing tumours, especially lung cancer, colon cancer, breast tumour, prostate tumour, rectal tumour or liver tumour. The PRO polypeptides are useful for stimulating the proliferation of, or gene expression, in pericyte cells, for stimulating the proliferation or differentiation of chondrocyte cells, for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    One hundred and twenty two nucleic acids encoding PRO polypeptides, useful for treating a PRO related disorder and for diagnosing tumors such as lung cancer, colon cancer, breast tumor, prostate tumor, rectal tumor or liver tumor.
                                                                                                                                    Human; secreted protein; zuparl; inflammation; immunosuppressive; cancer; tissue remodelling; vaccine; autoimmune disease; cell-mediated immunity; fibrinolysis cosquiation; circulatory anomaly; wound healing; vulnerary; contraception; sperm motility; fertilisation; immunocontraceptive;
                                                                                                                                                                                                                       Human secreted protein, zupar1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Baker KP, D
Grimaldi JC,
                     Peptide
                                                                      Homo sapiens
                                                                                                    spermatogenesis; antiinflammatory; contraceptive;
gene therapy; chromosome 19q.13.32.
                                                                                                                                                                                                                                                             22-APR-2002
                                                                                                                                                                                                                                                                                            AAE17451;
                                                                                                                                                                                                                                                                                                                            AAE17451 standard; protein; 124
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 Location/Qualifiers
1. .19
/label= Signal_peptide
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Smith V, Stephan JF, Watanabe CK, Wood WI;
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Pred. No. 2.3e-54;
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The present invention relates to a novel human secreted protein CC designated zuparl and its nucleic acid. zuparl gene is used in gene CC therapy and is located on chromosome 19q.13.32. Zuparl is useful in CC competing with complement or other membrane targetted complexes in CC reducing inflammation, coagulation or tissue remodeling and for treating CC autoimmune diseases, circulatory anomalies and blocking tissue remodeling CC in aggressive cancers, and used in wound healing. Zuparl is used in applications related to fibrinolysis coagulation, remodeling wound CC applications related to fibrinolysis coagulation, remodeling wound CC entaining, contraception and fertility. Zuparl are useful in enhancing to useful for enhancing sperm motility and enhancing egg-sperm interactions and is CC useful for enhancing fertilisation during assisted reproduction in humans CC and in animals by preventing attack by complement. In cases where CC pregnancy is not desired, zuparl may function as germ-cell-specific cantigens for use as components in immunocontraceptive or anti-fertility vaccines to induce formation of antibodies to selectively inhibit a cell-mediated immunity. Zuparl are useful as markers for testis tissue or CC sperm and as components of defined cell culture media to replace serum. CC zuparl blocking antibodies can also be used to target zuparl on specific coll populations, inactivating zuparl and rendering the cells susceptible coll populations in incomplement system. Zuparl and also could also act as antagonists by inhibiting components of spermatogenesis and/or sperm contraception in domestic animals and livestock.
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Novel zupar1 polypeptide useful for reducing inflammation, enhancing viability of cryopreserved sperm, sperm motility, egg-sperm interactions, and fertilization, or as components in antiinfertility vaccines.
                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 1; Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  N-PSDB; AAD28085
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Disulfide-bond
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                             present sequence
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76. .80
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111. .124
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າ= "Beta
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                              zuparl protein
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Query Match

100.0%;

Score

684;

BB <u>ن</u>

Length 124;

Sequence

124

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AAU83232
ID AAU8
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                                                                                                             The invention describes an isolated mammalian secreted polypeptide (MSP) (I). (I) is useful to direct the secretion of other proteins of interest from a host cell, to monitor secretion of proteins, to degenerate sequences comprising all nucleotide sequences encoding a particular polypeptide, to screen for cell metabolism effecting receptors, for identifying new target receptors and drug design, for identifying, for protein purification, for determining the weight of expressed MSP polypeptides as a ratio to total protein expressed, for identifying peptide cleavage sites, for coupling amino and carboxy terminal tags, for amino acid sequence analysis, for monitoring biological activities of the protein in vitro and in vivo, and to teach analytical skills and as reagents for the study of cells, receptors, and other binding molecules. The polynucleotide is useful for radiation hybrid mapping, and somatic cell genetic technique developed for constructing high-resolution,
                                                                contiguous maps of mammalian chromosomes. Reagents disclosed in the invention may be used to detect metabolic abnormalities characterised by over or under production of the protein. This is the amino acid sequence
                                                                                                                                                                                                                                                                                                                                                                             Claim 12; Page 382-383; 397pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                             Novel isolated mammalian secreted polypeptide useful in therapeutic and diagnostic methods, to direct secretion of other proteins of interest from host cell, as educational tools, and as laboratory practicum kits.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Protein secretion; mammalian secreted polypeptide; MSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (ZYMO ) ZYMOGENETICS INC
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                                                  mammalian secreted polypeptide,
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                                                   described in the method
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Sequence 124 AA

Query Match Best Local Similarity

100.0%;

Score Pred.

684; DB 6; No. 2.3e-54;

Length

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RESULT 6
ABU80752
ID MO752
ID MO752
ABU8
XX ABU8
XX ABU8
XX Huma
XX Huma
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PR 01-I
PR 01-I
PR 01-I
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Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Baker KP,
Grimaldi
                                                                              The present invention relates to the isolation of novel human PRO polypeptides, and the polynucleotide sequences encoding them. The PRO polypeptides are secreted and transmembrane proteins. The PRO polypeptides and polynucleotides are useful for preparing a medicament useful in the diagnosis and treatment of tumours. Anti-PRO antibodies are useful in diagnostic assays for PRO, by detecting its expression in specific cells, tissues or serum, are affinity purification of PRO from recombinant cell culture or natural sources. ABU80739-ABU80860 represent the human PRO polypeptides of the invention. Note: The sequence data for this patent was obtained in electronic format directly from the
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 11; Fig 28; 314pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    One hundred and twenty two nucleic acids encoding PRO polypeptides, useful for the manufacture of a medicament for diagnosing or treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2003-342045/32
N-PSDB; ACA66854.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25-UUL-2000; 2000US-0220638P.
01-UUN-2001; 2001WO-US017800.
29-UUN-2001; 2001WO-US012066.
09-APR-2002; 2002US-00119480.
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                                                           seqdata.uspto.gov/psipsDIDEntry.html
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Pred. No. 2.3e-54;
Mismatches 0;
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The invention describes an isolated nucleic acid molecule comprising a sequence with at least 80% identity to: (a) a nucleotide encoding any of 122 PRO (secreted and transmembrane) polypeptides whose sequences are fully defined in the specification; or (b) any of 122 nucleotide sequences having e.g. 4834, 2504 or 1759 bp fully defined in the specification; or the full length coding sequence of any these 122 nucleotide sequences. The PRO polypeptides or polynucleotides are useful as pharmaceuticals, diagnostics, biosensors or bioreactors. These are particularly useful for detecting tumours (e.g. lung tumour, colon tymour, breast tumour, prostate tumour, rectal tumour, or liver tumour, in a mammal, for stimulating the proliferation or differentiation of chondrocyte cells, for stimulating proliferation of pericyte cells, or for modulating the proliferation of pericyte cells, or for modulating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New genes, and its encoded secreted and transmembrane polypeptides, useful for stimulating Tumor Necrosis Factor alpha, or chondrocyte or pericyte proliferation, especially for treating lung tumors, arthriti
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29-JUN-2001; 2001WO-US021066.
09-APR-2002; 2002US-00119480.
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Smith V,
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Stephan JF, Watanabe
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                                                                                                                                        Baker KP,
Grimaldi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human; secreted and transmembrane protein; PRO; cardiant; cytostatic; antiangiogenic; hypotensive; vulnenry; antiarteriosclerotic; gene therapy; cardiovascular disorder; endothelial disorder; angiogenic disorder; cardiac hypotertropy; trauma; cancer; age-related macular degeneration; atherosclerosis; hypottension; arterial restenosis; rheumatoid arthritis; angina; myocardial infarctithrombophlebitis; lymphangitis; tumour angiogenesis; breast carcinoma;
                                                      WPI; 2003-393229/37.
N-PSDB; ACA68510.
                                                                                                                                                                                                                                                                             25-JUL-2000; 2000US-0220664P.
01-JUN-2001; 2001W0-US017800.
29-JUN-2001; 2001W0-US021066.
09-APR-2002; 2002US-00119480.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            08-MAY-2003.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US2003088063-A1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Novel human secreted and transmembrane protein PRO9862.
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                                                                                                                                                                                                                         (GETH ) GENENTECH INC.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              carcinoma; wound healing; chromosome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      13
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                                                                                                                                     Desnoyers
C, Gurney
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protein;
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                                                                                                                                        4.5
                                                                                                                                        Gerritsen ME, Goddard Smith V, Stephan JF,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
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Pred. No. 2.3e-54;
Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              mapping; gene
                                                                                                                   Matanabe
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                                                                                                                               Godowski PJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            124;
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One hundred and eighty seven nucleic acids encoding PRO polypeptides,

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RESULT 9
ABJ7241
ID ABJ7
XX ABJ7
AC ABJ7
XX PRO;
CAN PRO;
CAN PRO;
CAN PRO;
CAN PRO;
CAN PRO
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 124; Conser
                                                                                                                                                                                                                             Baker KP,
Grimaldi
                                                                                                                                                                                                                                                                                                                                                                       01-JUN-2001; 2001WO-US017800.
29-JUN-2001; 2001WO-US021066.
09-APR-2002; 2002US-00119480.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       encoding novel human secreted and transmembrane (PRO) polypeptides. The PRO nucleic acids, polypeptides, agonists and antagonists are useful for treating or diagnosing a cardiovascular, endothelial or angiogenic disorder in a mammal, e.g. cardiac hypertrophy, trauma, cancer, agerelated macular degeneration, atherosclerosis, hypertension, arterial restenosis, rheumatoid arthritis, angina, myocardial infarctions, thrombophlebitis, lymphangitis, tumour angiogenesis (such as breast carcinoma and liver carcinoma) and wound healing. The PRO nucleic acids have applications in molecular biology, including use as hybridisation probes, and in chromosome and gene mapping. This is the amino acid sequence of a novel human secreted and transmembrane PRO polypeptide
                          New nucleic acid encoding for a PRO protein, useful for the manufacture of a medicament for diagnosing or treating tumors or for measuring or detecting expression of an associated gene.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    28-AUG-2002; 2002US-00230414.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US2003050448-A1
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                                                                                                                                             N-PSDB;
                                                                                                                                                                          WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               13-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              differentiation;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The invention describes one hundred and eighty seven nucleic acids encoding novel human secreted and transmembrane (PRO) polypeptides
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                                                                                                                                                                                                                                                                                                                  (GETH ) GENENTECH INC.
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                                                                                                                                             2003-521818/49
DB; ABT44239.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           proliferation; pericyte cell; TNF-alpha; blood; chondrocyte;
erentiation; dermal fibroblast; tumour; gene therapy; cytostatic.
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C, Gurney
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                                                                                                                                                                                                                             <u>Α</u>,
                                                                                                                                                                                                                          Gerritsen
Smith V,
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Pred. No. 2.3e-54;
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                                                                                                                                                                                                                          ME, Goddard A, Godow
Stephan JF, Watanabe
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                                                                                                                                                                                                                          Godowski PJ;
tanabe CK, Wood
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RESULT 10

ABJ72369

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XX ABJ723

AC ABJ723

XX PRO;

IT O6-NO

XX PRO;

IT UIMOU

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XW CETH

AC ABJ723

AC ABJ73

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AC ABJ74

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Best Local S
Matches 124
                                                                                                                                                                                                                                                                                                                                 01-JUN-2001;
29-JUN-2001;
09-APR-2002;
                                                                                                                                                                                                      Baker KP,
Grimaldi i
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                     New PRO protein encoding nucleic acid, us polypeptides and anti-PRO antibodies for tumor in a mammal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRO; blood; proliferation; pericyte cell; TNF alpha; chondrocyte; tumour necrosis factor; proliferation; differentiation; gene ther dermal fibroblast.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human PRO9862
                                                                                                                             N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                         26-AUG-2002; 2002US-00227884.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              АВJ72369;
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                                                                                                                                                                                                                                                                                   (GETH ) GENENTECH INC
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                                                                                                                                ABT44522.
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                                                                                                                                                                                                      JС,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        124 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Fig 28; 315pp; English
                                                                                                                                                                                                                              Desnoyers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%;
ilarity 100.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                   2001WO-US017800.
2001WO-US021066.
2002US-00119480.
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                                                                                                                                                                                                        Gurney
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           protein;
                                                                                                                                                                                                      Ā,
                                                                                                                                                                                                   Gerritsen ME, Goddard Smith V, Stephan JF,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                124
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Pred. No. 2.3e-54;
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                                                  useful for preparing PRO or detecting the presence
                                                                                                                                                                                1 A, L. Watanabe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length
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                                                                                                                                                                                                                                Godowski PJ;
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Claim 11;

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28; 324pp; English

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 11
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The invention relates to a novel isolated PRO protein encoding nucleic acid. The nucleic acid of the invention may be useful for preparing PRO polypeptides and anti-PRO antibodies for detecting the presence of a tumour in a mammal. Furthermore, the molecules of the invention may be
                                                                                                                New transmembrane polypeptides and nucleic acids encoding the polypeptides, useful in gene therapy, in chromosome identification, chromosome markers, or in generating probes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-JUN-2001; 2001WO-US017800
29-JUN-2001; 2001WO-US021066
09-APR-2002; 2002US-00119480
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human secreted/transmembrane polypeptide PRO 9862.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19-SEP-2003
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                                                            Claim 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         28-AUG-2002; 2002US-00230338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human; chondrocyte stimulation; TNF-alpha stimulation; gene therapy; human dermal fibroblast stimulation; tumour; tissue typing;
                                                                                                                                                                                                                                                                                                                                                                                                                  (GETH ) GENENTECH INC.
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                                                         Fig 28; 315pp; English
                                                                                                                                                                                                                                                                                                                         Desnoyers
C, Gurney
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                                                                                                                                                                                                                                                                                                                            Gerritsen
Smith V,
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Pred. No. 2.3e-54;
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                                                                                                                                                                                                                                                                                                                            ME, Goddard A, Godowski PJ;
Stephan JF, Watanabe CK, W
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                                                                                                                                                                                                                                                                                                                               Wood WI
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The invention relates to an isolated nucleic acid encoding a PRO

WPI; 2003-522018/49 N-PSDB; ABT43895.

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CC polypeptide. Nucleic acids that encode PRO can be used to generate either CC transgenic animals or knock-out animals useful in developing and CC screening of therapeutically useful reagents. The nucleic acids may also be used in gene therapy for replacing defective gene, in chromosome CC identification, as chromosome markers, or in generating probes to isolate CC full length PRO cDNA. The PRO polypeptides are useful for chondrocyte CC timulation, TNF-alpha stimulation, human dermal fibroblasts stimulation CC and for detecting the presence of tumour in an mammal. The PRO CC polypeptides are useful as molecular markers for protein electrophoresis CC and the isolated nucleic acids may be used for recombinantly expressing CC those markers. The PRO polypeptides and nucleic acids may be used for recombinantly expressing CC those markers. The PRO polypeptides and nucleic acids may also be used in CI issue typing. Anti-PRO antibodies are useful in diagnostic assays for CC pRO and in affinity purification of PRO from recombinant cell culture or CC natural sources. The present sequence represents the amino acid sequence of a human secreted/transmembrane PRO polypeptide
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Best Local
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24-FEB-2000; 2000WO-US0055004.
02-MAR-2000; 2000WO-US005841.
01-JUN-2001; 2001WO-US017800.
29-JUN-2001; 2001WO-US021066.
09-APR-2002; 2002US-00119480.
                                                                                         Baker KP,
Grimaldi J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; PRO; membrane bound protein; membrane bound receptor; cell proliferation; cell migration; cell differentiation; mitogenic factor; survival factor; cytotoxic factor; differentiation factor; neuropeptide; hormone; cell receptor
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   03-APR-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human membrane bound receptor/protein PRO9862 amino acid sequence
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                                                                                                                                                                                         ) GENENTECH INC.
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                                                                                            Desnoyers L,
C, Gurney AL,
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                                                                                            Gerritsen ME, Goddard A, Godows
Smith V, Stephan JF, Watanabe
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Pred. No. 2.3e-54;
Mismatches 0;
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                                                                                                   Godowski PJ;
tanabe CK, Wood
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CC This invention relates to one hundred and twenty two novel nucleic acids CC encoding human PRO membrane bound proteins or receptors. Extracellular CC proteins play important roles in the formation, differentiation and CC maintenance of multicellular organisms. The fate of many individual cells CC (for example proliferation, migration or differentiation) is typically CC governed by information received from other cells and the immediate CC environment. The information is often transmitted by secreted CC polypeptides (for example mitogenic factors, survival factors, cytotoxic CC factors, differentiation factors, neuropeptides and hormones) which are CC played and interpreted by diverse cell receptors or membrane bound proteins. These membrane bound proteins and receptors may be of use as CC pharmaceutical and diagnostic agents, such as in the blocking of receptor ligand interactions. The current invention provides the amino acid CC with the CDNA sequences encoding them. The novel proteins, along CC with the CDNA sequences encoding them. The novel proteins, along CC with the CDNA sequences encoding them. The novel proteins of the CC chondrocytes. The nucleic acids of the invention may be useful for the CC manual. In addition, they may be useful for measuring or detecting the CC manual. In addition, they may be useful for measuring or detecting the CC expression of a tumour associated gene. The present sequence is the amino acid sequence of a human PRO protein of the invention
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                                                                                                                                                                                                                                                                                                    human; secreted and transmembrane protein; PRO; cytostatic; vul antiarthritic; pericyte cell proliferation; pericyte cell differentiation; chondrocyte cell differentiation; tumour necrosis factor alpha (TNF)-alpha release; dermal fibroblast cell proliferation; lunguermal fibroblast cell differentiation inhibitor; tumour; lunguermal fibroblast cell differentiation; tumour fibroblast cell differentiation fibroblast cell differen
                                                                                                                                                                                                                                               colon tumour; breast tumour; prostate tumour; rectal tumour; liver tumour; tissue typing; chromosome mapping; gene mappin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Novel human secreted and transmembrane protein PRO9862.
                          17-APR-2003
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                                                                                                                                                     Homo
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                                                                                                                                                                                                              therapy.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    the
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%;
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Pred. No. 2.3e-54;
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                                                                                                                                                                                                                                                                                                                                                                          factor alpha release
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                                                                                                                                                                                                                                                              CC for stimulating the proliferation or differentiation of chondrocyte cells. PRO231, PRO357, PRO125, PRO1306 or PRO1419 polypeptide CC alpha from human blodd. PRO982, PRO357, PRO725, PRO1306, PRO1419, PRO1309, PRO1417, PRO1307, PRO1214, PRO1307, PRO1308, PRO13141, PRO11309, PRO1307, PRO1309, PRO13019, PRO1309, PRO13019, PRO1309, PRO13019, PRO1309, PRO1301, PRO1309, PRO
                                                                                                                                                                       Matches 124;
                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                              Sequence
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N-PSDB; ADB83517.
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29-JUN-2001; 2001WO-US021066.
09-APR-2002; 2002US-00119480.
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                                                                                                                                                                                                                                                              124 AA;
  INKGCLRATSCGLEEPVSYRGVTYSLTTNCCTGRLCNRAPSSQTVGATTSLALGLGMLLP
                                        INKGCLRATSCGLEEPVSYRGVTYSLTTNCCTGRLCNRAPSSQTVGATTSLALGLGMLLP
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C, Gurney
                                                                                                                                                                          Conservative
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                                                                                                                                                                          <u>.</u>
                                                                                                                                                                                              Score 684; DB 7;
Pred. No. 2.3e-54;
                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                  Length 124;
                                                                                 Indels
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RESULT 14
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The invention describes an isolated PRO (secreted and transmembrane) CC polypeptide (I). PRO982, PRO1160, PRO1187 or PRO1329 polypeptide are CC useful for stimulating the proliferation of or gene expression in CC pericyte cells. PRO357, PRO229, PRO1272 or PRO405 polypeptide are useful for stimulating the proliferation or differentiation of chondrocyte CC cells. PRO231, PRO357, PRO725, PRO1155, PRO136 or PRO1419 polypeptide CC are useful for stimulating the release of tumour necrosis factor (TMF) - CC alpha from human blood. PRO982, PRO357, PRO725, PRO1306, PRO1419, PRO1307, PRO337, PRO856, PRO1308, PRO1309, PRO175, PRO10130, PRO1419, PRO1309, PRO1478, PRO1134, PRO1126, PRO1192, PRO10192, PRO1274, PRO1309, PRO1274, PRO1309, PRO1275, PRO10180, PRO1309, PRO1309, PRO1275, PRO1309, PRO1567, PRO1309, PRO1309, PRO1309, PRO1567, PRO1309, PRO1309, PRO1567, PRO1309, PRO1309, PRO1567, PRO1309, PRO1567, PRO1567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    One hundred and twenty two nucleic useful in gene therapy, chromosome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-JUN-2001; 2001WO-US017800.
29-JUN-2001; 2001WO-US021066.
09-APR-2002; 2002US-00119480.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 11;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JC,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Fig 28; 305pp;
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C, Gurney
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Smith V, Stephan JF, Watanabe CK,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 and gene mapping.
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Wood WI

96

New isolated PRO polypeptides useful as molecular weight markers in protein electrophoresis, useful for tissue typing, and for treating

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RESULT 15
ADB73165
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Best Local (
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                                                                                     Baker KP,
Grimaldi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           the PRO polypeptides in the test sample as compared to the control sample is indicative of the presence of tumour in the mammal. The tumour is lung tumour, colon tumour, breast tumour in the mammal. The tumour is lung tumour, colon tumour, becaute tumour in the mammal. The tumour or liver tumour. (I) is useful as molecular weight markers, for tissue typing, or as therapeutic agents. A polynucleotide (II) encoding (I) is useful for chromosome and gene mapping or gene therapy. (II) is useful for generating transgenic animals or knock-out animals which are useful screening useful reagents. PRO357, PRO3279. PRO1272 or PRO4405 polypeptide is useful for treating bone and/or cartilage disorders (e.g., arthritis, sport injuries). This is the amino acid sequence of a human secreted and transmembrane PRO polypeptide.
                                                                                                                                                            01-JUN-2001; 2001WO-US017800
29-JUN-2001; 2001WO-US021066
09-APR-2002; 2002US-00119480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Novel
                                                                                                                                                                                                                                                                                                                                                                                           chondrocyte cell differentiation; tumour necrosis factor alpha (TNF)-alpha release; dermal fibroblast cell proliferation; dermal fibroblast cell differentiation inhibitor; tumour; lung
                                                                                                                                                                                                                                                                                                                                                                                                                                      human; secreted and transmembrane protein; PRO; cytostatic; vulnerary; antiarthritic; pericyte cell proliferation; pericyte cell differentiation; chondrocyte cell proliferation;
                                          N-PSDB;
                                                                                                                                                                                                                          29-AUG-2002; 2002US-00232223
                                                                                                                                                                                                                                                      22-MAY-2003.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADB73165 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 124 AA;
                                                                                                                                                                                                                                                                                    US2003096968-A1
                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                gene
                                                                                                                                                                                                                                                                                                                                                                              colon
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                                                                                                                                 (GETH ) GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                               colon tumour;
liver tumour;
                                                        2003-765525/72
                                                                                                                                                                                                                                                                                                                                               therapy.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 MYLCWILLLYWALPRGTTGVKDCVFCELTDSMQCPGTYMHCGDDEDCFTGHGVAPGTGPV
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MVLCWLLLLVMALPPGTTGVKDCVFCELTDSMQCPGTYMHCGDDEDCFTGHGVAPGTGPV
                                                                                     Desnoyers
C, Gurney
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     secreted and transmembrane protein PRO9862
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                                                                                                                                                                                                                                                                                                                                                               tissue typing;
                                                                                                                                                                                                                                                                                                                                                                             breast tumour;
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                                                                                   Gerritsen ME, Goddard A, Godowski PJ;
Smith V, Stephan JF, Watanabe CK, Wood WI;
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chromosome mapping; gene mappir
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Pred. No. 2.3e-54;
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Search completed: April 15, 2005, 14:08:12 Job time: 81 secs
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CC Pholypeptide (I). PRO392, PRO1160, PRO1187 or PRO1329 polypeptide are useful for stimulating the proliferation of or gene expression in CC pericyte cells. PRO357, PRO229, PRO1272 or PRO405 polypeptide are useful for stimulating the proliferation of or gene expression in CC pericyte cells. PRO357, PRO229, PRO1272 or PRO405 polypeptide are useful CC cells. PRO231, PRO357, PRO725, PRO1127 proposed for stimulating the proliferation or differentiation of chondrocyte CC eare useful for stimulating the release of tumour necrosis factor (TMP)-CC PRO247, PRO337, PRO526, PRO357, PRO1355, PRO1196, PRO1306, PRO1419, PRO1412, PRO1376, PRO1134, PRO1326, PRO11063, PRO1093, PRO3419, PRO1412, PRO1255, PRO1131, PRO1126, PRO1126, PRO1192, PRO1274, PRO1374, PRO1338, PRO1286, PRO1337, PRO1326, PRO1192, PRO1274, PRO1374, PRO1338, PRO1288, PRO4341, PRO1369, PRO1474, PRO1377, PRO1367, PRO1387, PRO1388, PRO4322, PRO4887, PRO1388, PRO4341, PRO1397, PRO1388, PRO4322, PRO4887, PRO3387, PRO1397, PRO1388, PRO4322, PRO4887, PRO3387, PRO1399, PRO1399,
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Best Local S
Matches 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 124 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   transmembrane PRO polypeptide.
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                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
                                                                                                                         121 PRLL 124
                                                                                            121 PRLL 124
                                                                                                                                                                                 tch 100.0%; Score 684; DB 7; Length 124; al Similarity 100.0%; Pred. No. 2.3e-54; 124; Conservative 0; Mismatches 0; Indels
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Post-processing: Minimum Match 0%
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Listing first 45 summaries
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Perfect score:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OM protein - protein search, using sw model
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Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                           1612378 seqs, 512079187 residues
                                                                                                                                                                                                                                                                                                                                                                                 US-10-809-654-16
684
UniProt_03:*
1: uniprot_sprot:*
2: uniprot_trembl:*
                                                                                                                                                                                                                                                                                                                                                                                                                                      April 15, 2005, 14:00:50; Search time 184 Seconds (without alignments) 345.097 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                               1 MVLCWLLLLVMALPPGTTGV......VGATTSLALGLGMLLPPRLL 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

27 90.5 1 28 90.5 1 29 90.5 1 30 89.5 1	, , , , , , , , , , , , , , , , , , ,	90.5 5	, 900. 500.	90.5	90.5			91.5	91.5	92	92	92.5	92.		19 93 1				96		101	٠.	102.5		-			Ľ	_	_		2 463 6	1 684 1	Result Qu No. Score Ma	æ
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Q9ncr4 dendroides	dendr	TOTTO				Q6uxb3 nomo sapien		rattu	095868 homo sapien	Q9z1q3 mus musculu	Bru	omon e	rugu	_			P61050 macaca mula	O43653 homo sapien	0	00	9 mus 7	homo	homo	5 mus a	homo	hom	U	Q6mg57 rattus norv	-	Q9ump8 homo sapien	Q9dak7 mus musculu	Q80zq0 mus musculu	o sapi	Description	

4 5	44	43	42	41	40	39	38	37	36	35	34	ω W	32	
84	84	84.5	84.5	84.5	84.5	85.5	85.5	86	86	86	86.5	87	87.5	
12.3	12.3	12.4	12.4	12.4	12.4	12.5	12.5	12.6	12.6	12.6	12.6	12.7	12.8	
201	119	474	136	123	123	966	560	346	346	294	126	166	118	•
N	N	N	N	N	N	N	N	N	ຎ	N	μ.	N	N	
Q9PTC7	Q64HX7	Q68EF1	Q9NCR2	Q9D7U0	Q9NCQ9	Q22378	Q9U013	Q9UJ74	095274	Q9GYJ3	LY6E_CHICK	Q8K1T6	Q9NCQ7	
Q9ptc7 oxyuranus m	Q64hx7 oncorhynchu	_	Q9ncr2 dendroides	Q9d7u0 mus musculu	Q9ncq9 dendroides	~	Q9u013 giardia lam	-	-		Q90986 gallus gall	Q8k1t6 mus musculu	Q9ncq7 dendroides	

ALIGNMENTS

R R R R R R R R R R R R R R R R R R R	RELITIONS OF THE RESULT
QUENCE FROM N SSUE=Brain; DLINE=2238825 rausberg R.L. ausner R.D. tschul S.F., pkins R.F.,	MS Q8TDM5; Q8TDM5; Q8TDM5; Q1-JUN-2002 (TrEMBLrel. 21, Created) Q8TDM5; Q1-JUN-2002 (TrEMBLrel. 21, Last sequence update) Q1-JUN-2002 (TrEMBLrel. 21, Last sequence update) Q5-Q7-2004 (TrEMBLrel. 28, Last annotation update) Q5-Q7-2004 (TrEMBLrel. 21, Last sequence update) Q5-Q7-2004 (TrEMBLrel. 28, Last annotation update) Q5-Q7-2004 (TrEMBLrel. 28, Last annotation; Q6-Q7-2004 (TrEMBLrel. 21, Last sequence update) Q5-Q7-2004 (TrEMBLrel. 21, Last sequence update) Q6-Q7-2004 (TrEMBLrel. 21, Last sequence update) Q7-2004 (TrEMBLr

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RESULT
QRESULT
                                                      RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Altschul S.F., Jeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Stapleton M.J., Usdin T.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Raha S.S., McZwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Willalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,
RA Villalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,
RA Whiting M., Madan A., Young A.C., Schecko M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
RA Krzywinski M.I., Skalska U., Smailus D.E., Schmerch A., Schein J.E.,
RA Jones S. T. Marra M. A.
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bioinformatics assessment.";
Genome Res. 13:2265-2270(2003).
EMBL; AF353721; AAL83950.1; -.
EMBL; BC047334; AAH47334.1; -.
EMBL; BC047334; AAQ88753.1; -.
EMBL; AY358387; AAQ88753.1; -.
Genew; HGNC:16441; SPACA4.
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01-MAR-2004 (TrEMBLrel.
RIKEN cDNA 1700008E09.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Clark H.F., Gurney A.L., Abaya E., Baker K., Baldwin D., Brush J., Chow B., Chui C., Crowley C., Currell B., Deuel B., Dowd P Eaton D., Foster J., Grimaldi C., Gu Q., Hass P.E., Heldens S., Lee J., Huang A., Kim H.S., Klimowski L., Jin Y., Johnson S., Lee J., Lewis L., Liao D., Mark M., Robbie E., Sanchez C., Schoenfeld J., Seshagiri S., Simmons L., Singh J., Smith V., Stinson J., Vagts A., Vandlen R., Watanabe C., Wieand D., Woods K., Xie M.H., Yansura D., Yi S., Yu G., Yuan J., Zhang M., Zhang Z., Goddard A., Wood W.I.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mus musculus (Mouse)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
MEDLINE=22887296; PubMed=12975309; DOI=10.1101/gr.1293003;
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Rodentia;
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No. 7e-56;
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Best Local S
Matches 84
SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Testis;
STRAIN=C57BL/6J; TISSUE=Testis;
STRAIN=20499374; PubMed=11042159; DOI=10.1101/gr.145100;
Carrinci P., Shibata Y., Hayatsu N., Sugahara Y., Shibata K.,
Konno H., Okazaki Y., Muramatsu M., Hayashizaki Y.;
Konno H., Okazaki Y., Muramatsu M., Hayashizaki Y.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Testis;
MEDLINE=21085660; PubMed=11217851; DOI=10.1038/35055500;
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STRAIN=C57BL/60; TISSUE=Testis;
MEDLINE=99279253; PubMed=10349636; DOI=10.1016/S0076-6879(99)03004-9;
Carninci P., Hayashizaki Y.;
"High-efficiency full-length cDNA cloning.";
Meth. Enzymol. 303:19-44(1999).
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01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-JUN-2002 (TrEMBLrel. 21, Last saquence update)
01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
Mus musculus adult male testis cDNA, RIKEN full-length enriched
library, clone:1700008E09 product:hypothetical protein, full ins
                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE~Testis;
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                                                                                                                                                                                                                                                         the RIKEN Genome Exploration Research Group "Analysis of the mouse transcriptome based o
                                                                                                                                                                                                                                                                                                                  The FANTOM Consortium,
                                                                                                                                                                                                                                                                                                                                                                                                                                              RIKEN FANTOM Consortium; "Functional annotation of a full-length mouse cDNA collection.";
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Mammalia; Eutheria;
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                                                                                                                                                                                                                                                                                                                                                                                                                      Nature 409:685-690(2001).
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                                                                                                                                                                                                           full-length cDNAs.";
420:563-573(2002).
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Rodentia; Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           13380 MW;
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A Arakawa T., Bono H., Carninci P., Fukuda S., Fukunishi Y., Furuno M.,
A Hanagaki T., Hara A., Hayatsu N., Hiramoto K., Hiraoka T., Hori F.,
Imotani K., Ishii Y., Itoh M., Izawa M., Kasukawa T., Kato H.,
A Kawai J., Kojima Y., Konno H., Kouda M., Koya S., Kurihara C.,
A Kawai J., Kojima Y., Konno H., Kouda M., Koya S., Kurihara C.,
A Matsuyama T., Miyazaki A., Nishi K., Nomura K., Numazaki R., Ohno M.,
A Matsuyama T., Okido T., Owa C., Saito H., Saito R., Sakai C., Sakai K.,
A Okazaki Y., Okido T., Owa C., Saito H., Saito R., Sakai C., Sakai K.,
A Sano H., Sasaki D., Shibata K., Shibata Y., Shinagawa A., Shiraki T.,
A Sogabe Y., Suzuki H., Tagami M., Tagawa A., Takahashi F., Tanaka T.,
A Sogabe Y., Toya T., Yanamura T., Yasunishi A., Yoshida K., Yoshino M.,
A Muramatsu M., Hayashizaki Y.,
Submitted (JUL-2000) to the EMBL/GenBank/DDBJ.databases.

R EMBL; AK005760; BAB24224.1; -
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MEDLINE=20530913; PubMed=11076861; DOI=10.1101/gr.152600;

MEDLINE=20530913; PubMed=11076861; DOI=10.1101/gr.152600;

Shibata K., Itch M., Aizawa K., Nagaoka S., Sasaki N., Carninci P.,

Konno H., Akiyama J., Nishi K., Kitsunai T., Tashiro T., Harada A.,

Sumi N., Ishii Y., Nakamura S., Hazama M., Nishine T., Harada A.,

Yamamoto R., Matsumoto H., Sakaguchi S., Ikegami T., Kashiwagi K.,

Fujiwake S., Inoue K., Togawa Y., Izawa M., Ohara E., Watahiki M.,

Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J.,

Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J.,

Okazaki Y., Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.;

"RIKEN integrated sequence analysis (RISA) system-384-format

sequencing pipeline with 384 multicapillary sequencer.";
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Q9UMP8;
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SEQUENCE FROM N.A.
STRAIN-C57BL/6J; TISSUE-Testis;
STRAIN-C57BL/6J; Akahira S
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MEDLINE=99316314; PubMed=10384126;
Ribas G., Neville M., Wixon J.L.,
                                                                                                                                                                                                                               Homo sapiens (Human)
Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                             G6e protein
Ribas G., Neville M., Wixon J.L., Cheng J., Campbell R.D.; "Genes encoding three new members of the leukocyte antigen 6 superfamily and a novel member of Ig superfamily, together with encoding the regulatory nuclear chloride ion channel protein (ha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE
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Hori F.,
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01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
Mus musculus adult male stomach CDNA, RIKEN full-length enriche
library, clone:2210003103 product:weakly similar to METASTASIS-
ASSOCIATED GPI-ANCHORED PROTEIN.
MEDLINE-20499374, PubMed-11042159; DOI=10.1101/gr.145100; Carninci P., Shibata Y., Hayatsu N., Sugahara Y., Shibata Konno H., Okazaki Y., Muramatsu M., Hayathizaki Y.; "Normalization and subtraction of cap-trapper-selected cDN prepare full-length cDNA libraries for rapid discovery of Genome Res. 10:1617-1630(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Stomach;
MEDLINE=21085660; PubMed=11217851; DOI=10.1038/35055500;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Carninci P., Hayashizaki Y.;
"High-efficiency full-length cDNA
Meth. Enzymol. 303:19-44(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Stomach;
MEDLINE=99279253; PubMed=10349636;
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MEDLINE=22074936; PubMed=12079290; DOI=10.1006/geno.2002.6794;

Mallya M., Campbell R.D., Aguado B.;

"Transcriptional analysis of a novel cluster of LY-6 family members the human and mouse major histocompatibility complex: five genes with
                                                                                                                                                                                                                                      the RIKEN Genome Exploration Research Group "Analysis of the mouse transcriptome based 60,770 full-length cDNAs.";
Nature 420:563-573(2002).
                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Stomach;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Name=2210003I03Rik;
Mus musculus (Mouse).
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Genomics 80:113-123(2002).
                                                                                                                                                                                                                                                                                                                                            The FANTOM Consortium,
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Nature 409:685-690(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RIKEN FANTOM Consortium; "Functional annotation of a full-length mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE
                                                                                                                                                                 STRAIN=C57BL/6J; TISSUE=Stomach;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL;
                                                                                                                                                                                       SEQUENCE FROM
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31.9%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DOI=10.1016/S0076-6879(99)03004-9;
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                                                                                                                                                                                                                                                                                                                        Phase I & II Team;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   55,
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RESULT
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PSEQUENCE FROM N.A.

STRAIN=C57BL/6J; TISSUE=Stomach;

C STRAIN=C57BL/6J; TISSUE=Stomach;

X MEDLINE=20530913; PubMed=11076861; DOI=10.1101/gr.152600;

A Shibata K., Itoh M., Aizawa K., Nagaoka S., Sasaki N., Carninci P.,

RA Konno H., Akiyama J., Nishi K., Kitsunai T., Tashiro H., Itoh M.,

RA Sumi N., Ishii Y., Nakamura S., Hazama M., Nishine T., Harada A.,

RA Yamamoto R., Matsumoto H., Sakaguchi S., Ikegami T., Kashiwagi K.,

RA Fujiwake S., Inoue K., Togawa Y., Izawa M., Ohara E., Watahiki M.,

RA Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J.,

RA Okazaki Y., Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.;

RT "RIKEN integrated sequence analysis (RISA) system-384-format

RT sequencing pipeline with 384 multicapillary sequencer.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRAIN-C57BL/G; TISSUE-Stomach;

A Adachi J., Aizawa K., Akahira S., Akimura T., Arai A., Aono H.,

A Adachi J., Aizawa K., Akahira S., Fukunishi Y., Furuno M.,

A Arakawa T., Bono H., Carninci P., Fukuda S., Fukunishi Y., Furuno M.,

A Hanagaki T., Hara A., Hayatsu N., Hiramoto K., Hiraoka T., Hori F.,

Imotani K., Ishii Y., Itoh M., Izawa M., Kasukawa T., Kato H.,

Kawai J., Kojima Y., Konno H., Kouda M., Koya S., Kurihara C.,

A Kawai J., Kojima Y., Konno H., Kouda M., Koya S., Kurihara C.,

A Matsuyama T., Miyazaki A., Nishi K., Nomura K., Numazaki R., Ohno M.,

A Matsuyama T., Miyazaki A., Nishi K., Nomura K., Numazaki R., Ohno M.,

A Matsuyama T., Okido T., Owa C., Saito H., Saito R., Sakai C., Sakai K.,

A Okazaki Y., Okido T., Owa C., Saito H., Saito R., Sakai C., Sakai K.,

A Okazaki Y., Okido T., Owa C., Saito H., Saito R., Sakai C., Sakai T.,

A Sogabe Y., Suzuki H., Tagami M., Tagawa A., Takahashi F., Tanaka T.,

A Sogabe Y., Suzuki H., Tagami M., Tagawa A., Takahashi F., Tanaka T.,

A Tejima Y., Toya T., Yamamura T., Yasunishi A., Yoshida K., Yoshino M.,

M Muramatsu M., Hayashizaki Y.,

Submitted (UIL-2000) to the EMBL/GenBank/DDBJ databases.

EMBL; AK008654; BAB25810.1; -.

B MGD; MGJ:1924192; 2210031103Rik.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
      STRAIN-Brown Norway;
STRAIN-Brown Norway;
PubMed=15060004; DOI=10.1101/gr.1987704;
Hurt P., Walter L., Sudbrak R., Klages S., Mueller I.,
Inoko H., Lehrach H., Guenther E., Reinhardt R., Himmel
Inoko H., Lehrach and comparative analysis of the I
                                                                                                                                                                                                                                                                                                                                                                                                                        O6MG57;
05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
Lymphocyte antigen 6 complex, locus G6E.
                                                                                                                                                                                                                                                                                                                                                                                                Name=Ly6g6e;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q6MG57
                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          InterPro; IPR001526; LY6_UPAR.
SMART; SM00134; LU; 1.
PROSITE; PS00983; LY6_UPAR; UNKNOWN_1.
SEQUENCE 256 AA; 27450 MW; D66B557
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                                                                                                                                                                                                                                                                                                                           norvegicus (Rat)
ota: Metazoa; Chordata;
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                                                                                                                                                                                                                                                                                            Eutheria;
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                                                                                                                                                                                                                                                                                                Rodentia;
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Pred. No. 0.
                                                                                                                                                                                                                                                                                         Sciurognathi;
                                                                                                                                                                                                                                                                                                                        Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     D66B55762C8D767B CRC64;
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                                                                                                                                                                                                                                                                                                Muridae; Murinae; Rattus.
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                                                          er I., Shiina T.
Himmelbauer H.;
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RESULT RESULT AC COMPANY RANGE RANGE
                                                                                                                                          RA Okazaki Y., Furuno M., Kasukawa T., Adachi J., Bono H., Kiyosawa H., RA Nikaido I., Osato N., Saito R., Suzuki H., Yamanaka I., Kiyosawa H., RA Yagi K., Tomaru Y., Hasegawa Y., Nogami A., Schombach C., Gojobori T., RA Baldarelli R., Hill D.P., Bult C., Hume D.A., Quackenbush J., RA Baldarelli R., Hill D.P., Bult C., Hume D.A., Quackenbush J., RA Baldarelli R., Dradt D., Brusic V., Chothia C., Corbani L.E., Cousins S., RA Blake J.A., Bradt D., Brusic V., Chothia C., Corbani L.E., Cousins S., RA Blake J.A., Bradt D., Brusic V., Chothia C., Corbani L.E., Cousins S., RA Gassterland T., Gariboldi M., Gissi C., Godzik A., Gough J., RA Grimmond S., Guutincich S., Hirokawa N., Jackson I.J., Jarvis E.D., RA Kanai A., Kawaji H., Kawasawa Y., Kedziereki R. M., King B.L., RA Konagaya A., Kurochkin I.V., Lee Y., Lenhard B., Lyons P.A., RA Konagaya A., Kurochkin I.V., Lee Y., Lenhard B., Lyons P.A., RA Maglabima T., Numata K., Okido T., Pavan W.J., Pertea G., Pesole G., Petrovsky N., Pillai R., Pontius J.U., Qi D., Ramachandran S., RA Petrovsky N., Pillai R., Pontius J.U., Qi D., Ramachandran S., RA Sandelin A., Schneider C., Semple C.A., Setou M., Shinada K., Shinada K., Wantana R., Takenaka Y., Taylor M.S., Teasdale R.D., Tomita M., Varatun G.G., Wanshawa P., Wallas C., Wang Y., Watanabe Y., Wells C., RA Verardo R., Wanki K., Kawai J., Aizawa K., Arakawa T., Fukuda S., RA Hara A., Hashizume W., Imotani K., Ishii Y., Itoh M., Kagawa I., RA Minnighi A., Yoshino M., Waterston R., Lander E.S., Rogers J., RA Hara A., Hashizume W., Imotani K., Ishii Y., Itoh M., Kagawa I., RA Hara A., Hashizume W., Imotani K., Ishii Y., Itoh M., Kagawa I., RA Hara A., Hashizume W., Imotani K., Ishii Y., Itoh M., Kagawa I., Ra Minnishi A., Yoshino M., Waterston R., Lander E.S., Rogers J., Ra Birney E., Hayashizaki Y.; Romor B., Sanki D., Sanki D., Shinagawa A., Ra Hara S., Sakai K., Sasaki D., Shinaga K., Shinagawa A., Ra Sakai K., Sasaki D., Shinagawa M., Sakai K., Sasaki D., Shinagawa K., Sakai K., Sakai K., Sakai K., Sakai K., Sakai K., Sak
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Best Local S
Matches 34
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Boehm S., Borzym K., Gelling S., Gimmel V., Heitman
Boehm S., Borzym K., Gelling S., Gimmel V., Heitman
Lang N., Lehrack S., Thiel J., Sontag M., Hurt P.,
Sudbrak R., Reinhardt R.;
Submitted (DEC-2003) to the EMBL/GenBank/DDBJ datab
EMBL; BX883045; CAE83989.1; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  E323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN=C57BL/6J; TISSUE=Eye; MEDLINE=22354683; PubMed=12466851; DOI=10.1038/nature01266;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              25-JAN-2005 (Rel.
25-JAN-2005 (Rel.
25-JAN-2005 (Rel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                histocompatibility complex.";
Genome Res. 14:631-639(2004).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Protein EPGP3023 precursor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                088PP5;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOUSE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GLEEPVSYRGVTYSLTTNCCTGRLCNRAPSSQTVGATTSLALGLGMLLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTGVKDCVFCELTDSMQCFGTYMHCGDDSDCFTGHGVAPGTGF-----VINKGCLRATSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        133 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              46, Created)
46, Last sequence up
46, Last annotation
                                                                                                                                cDNAs.";
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14635 MW;
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31.2%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                . 026 ;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Kosiura A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
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FROM

.A. TISSUE=Eye

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RESULT
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RA Klauener R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Altschul S.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Hopkins R.B., Bonaldo M.A., Rubin G.M., Hong L.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Richards S., Mocley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Richards S., Morley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RGeneration and initial analysis of more than 15,000 full-length human and mouse cDNA sequences.";
RT "Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences.";
RT Total R. Location 1 UPAR/Ly6 domain.

CC --- SIMILARITY: Contains 1 UPAR/Ly6 domain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local S
Matches 42
                                                                                                                                                                           Q9H2B5
Q9H2B5;
01-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Signal.
SIGNAL
Homo sapiens (Human)
Eukaryota; Metazoa;
                                                                                                                     01-MAR-2001
01-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 This SWISS-PROT entry is copyright. It is produced through a cobetween the Swiss Institute of Bioinformatics and the EMBL the European Bioinformatics Institute. There are no restrict use by non-profit institutions as long as its content is modified and this statement is not removed. Usage by and fo entitles requires a licement is (See http://www.isb-sib.or send an email to license@isb-sib.ch).
                                                            Name=IGFBP6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MGD;
                                                                                       Insulin-like growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; AK053620;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTYMHC-GDDEDCFTGHGV-APGTGPVINKGCLRATSC---
                                                                                                                                                                                                                                                                                                                                                                                     CEGNICALPLPRNETDATFATTS
                                                                                                                                                                                                                                                                                                                                                                                                                                            CTGRLCN-RAPSSQT--VGATTS 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LAWLLLLSLVADCLKAAQSRDFTVKDIIYLHPSTTPYPGGFKCFTCEKAADNYECNRWAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LCWLLLL-----P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IPR001526;
                                                                              (TrEMBLrel. 16, Created)
(TrEMBLrel. 16, Last sequence update)
(TrEMBLrel. 25, Last annotation update)
growth factor binding protein 6 (Fragment).
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                                                                                                                                                                                                                                           PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAH70462.1; -
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171
141
134
134
      Chordata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       19065
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29.4%;
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Protein EPGP3023.

UPAR/Ly6.

N-linked (GlcNAc. . .) (Potential).

N-linked (GlcNAc. . .) (Potential).

2AF886868BDE5CC4 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 105; DB 1
Pred. No. 0.055;
5; Mismatches
      Craniata;
                                                                                                                                                                                                                                           111
         Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 171;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GLEEPVSYRGVTYSLTTNC
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EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       40;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
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SEQUENCE FROM N.A.

BEDLINE=21167382; PubMed=11267670; DOI=10.1016/S0167-4781(01)00192-0; Dailly Y.P., Zhou Y., Linkhart T.A., Baylink D.J., Strong D.D.;

"Structure and characterization of the human insulin-like growth factor binding protein (IGFBP)-6 promoter: identification of a functional retinoid response element.";

Biochim. Biophys. Acta 1518:145-151(2001).
                          SEQUENCE
Rieder M.
                                                                                                   MEDIINE=99189142; PubMed=10087296; Ehrenborg E., Zazzi H., Lagercrantz S., Granqvi Allander S.V., Larsson C., Luthman H.; Characterization and chromosomal localization like growth factor-binding protein 6 gene."; Mamm. Genome 10:376-380(1999).
                                                                                                                                                                                                                                                                                                             MEDLINE=91225006; PubMed=1709161; Kiefer M.C., Masiarz F.R., Bauer D.M., Zapf J.; Tidentification and molecular cloning of two new 30-kDa insulin-like growth factor binding proteins isolated from adult human serum."; J. Biol. Chem. 266:9043-9049(1991).
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01-MAR 1992 (Rel. 21, Last sequence update)
25-OCT-2004 (Rel. 45, Last annotation update)
Insulin-like growth factor binding protein 6
0 (IGF-binding protein 6)
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P24592; Q14
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GO; G
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Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
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GO; GO:0005520; F:insulin-like growth factor
GO; GO:0005582; P:regulation of cell growth;
InterPro; IPR009030; Grow_fac_recept.
InterPro; IPR009867; Insl_gro_fac_pr.
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NCBI_TaxID=9606;
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VARIANTS GLY-128 AND GLN-217.
R.J., Daniels M.R., Chung M.-W.
.P., Nguyen D.A., Poel C.L., Rob
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Robertson

acetylhexosamine (probably GalNAc) and sialic acid residues. Major glycoforms consist of 8-16 monosaccharides (by homology to IGPBP-6 expressed recominantly in CHO cells).

-i- SIMILARITY: Contains 1 IGFBP domain.

-i- SIMILARITY: Contains 1 thyroglobulin type-I domain.

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A Strausberg R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
A Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
A Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
A Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
A Stapleton M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
A Stapleton M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
A Stapleton M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
A Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
A Raha S.S., McGwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
A Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
A Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
A Rilandon J.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,
A Willialon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,
A Whiting M., Wadan A., Young A.C., Shevchenko Y., Bouffard G.G.,
A Whiting M., Wadan A., Young A.C., Shevchenko Y., Bouffard G.G.,
A Modriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
Tollow J., Schmutz J., Myers R.M.,
Tollow J., Jones S.J.M., Marra M.A.;
The Generation and intrial analysis of Force than 15 000 full learnth human
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PRELIMINARY SEQUENCE OF 28-42.
PRELIMINARY SEQUENCE OF 28-42.
TISSUB=Cerebrospinal fluid;
MEDLINE=90005986; PubMed=2551732; DOI=10.1016/0014-5793(89)81101-9;
MEDLINE=90005986; PubMed=2551732; PubMed=255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE-98241382; PubMed-9572875; DOI=10.1021/bi972894e; Neumann G.M., Marinaro J.A., Bach L.A.; Neumann G.M., Marinaro J.A., Bach L.A.; "Identification of O-glycosylation sites and partial characterization of carbohydrate structure and disulfide linkages of human insulin-like growth factor binding protein 6."; Biochemistry 37:6572-6585(1998).
      <del>:</del>
                                                                                                                                                                                                                                                                                                                                                      determined by mass spectrometry.";
J. Biol. Chem. 274:14587-14594(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Neumann G.M., Bach L.A.; "The N-terminal disulfide linkages of human insulin-like
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MEDLINE=92049376; PubMed=1719383;
Gao L., Shimonaka M.,
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                                                FUNCTION: IGF-binding proteins prolong the half-life of the and have been shown to either inhibit or stimulate the gropomoting effects of the IGFs on cell culture. They alter interaction of IGFs with their cell surface receptors.

SUBCELLULAR LOCATION: Secreted.
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insulin-like growth factor-binding
(probably Gal),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           are different
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                                                                                                                                                                                                                                                                                               of the IGFs
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Matches 37
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EMBL; AY443494; AAR05445.1; -.
EMBL; BC003507; AAH03507.1; -.
EMBL; BC005007; AAH05007.1; -.
EMBL; BC010162; AAH10162.1; -.
EMBL; BC011708; AAH11708.1; -.
                                                                                                                                                                                                                                                                                       Polymorphism;
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CHAIN 2
                                                                 CONFLICT
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DISULFID
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Pfam; PF00086; Thyroglobulin 1; 1.

PIRSF; PIRSF001969; IGFBP1-6; 1.

SMART; SM00121; IB; 1.

SMART; SM00211; TY; 1.
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InterPro;
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                                                                                                                                                                                                                                                                                                                             PROSITE; PS00222; IGF_BINDING; FALS
PROSITE; PS00484; THYROGLOBULIN_1;
                                                                                                                                                                                                                                                                                                                                                                                                                              MIM; 146735; -.
GO; GO:0008285; P:negative regulation
                                                                                                                                                                                                                                                                                                                                                                                                                                                             HSSP;
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                                                                                                                                   VARIANT
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                                                                                                                                                                                                                                                                                                                                                                                              InterPro;
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S05699; S05699.
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3 LCWLLLLVMALPPGTTGVKDCVFCELTDSMQCPGTYMHCGDDEDCFTGHGVAPGTGPVIN
                                      Similarity
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IPR009168; IGFBP1-6.
IPR000867; Insl_gro fac pr.
IPR000716; Thyroglobulin_1.
                                                                  240
                             Conservative
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201
214
126
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                                                                  AA;
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63
1044
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240
                                                                   25322
                                     15.3%;
                                                                  MW;
                             10;
                            Score 104.5; | Pred. No. 0.08
                                                                                                                                           O-linked
O-linked
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O-linked
                                                                                   /FTId=VAR_018933.
T -> P (in dbsNP:1053134).
/FTId=VAR_011907.
                                                                                                                                                                                                                                                                  Insulin-like growth factor binding protein 6. Thyroglobulin type-I.
                                                                                                                                                                                                                                                                                                  Probable
                                                                                                                        FTId=VAR_018932
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                                                                                 STRAIN=C57BL/6J; TISSUE=Tongue;

MEDLINB=20530913; PubMed=11076861; DOI=10.1101/gr.152600;

Shibata K., Itoh M., Aizawa K., Nagaoka S., Sasaki N., Carninci P.,

Konno H., Akiyama J., Nishi K., Kitsunai T., Tashiro H., Itoh M.,

Sumi N., Ishii Y., Nakamura S., Hazama M., Nishine T., Harada A.,

Yamamoto R., Matsumoto H., Sakaguchi S., Ikegami T., Kashiwagi K.,

Pujiwake S., Inoue K., Togawa Y., Izawa M., Ohara E., Watahiki M.,

Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J.,

Okazaki Y., Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.;

RIKEN integrated sequence analysis (RISA) system-384-format

pequencing pipeline with 384 multicapillary sequencer.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
STRAIN-C57EL/63; TISSUE-Tongue;
STRAIN-C57EL/63; FISSUE-Tongue;
MEDLINE-20499374; PubMed=11042159; DOI=10.1101/gr.145100;
Carninci P., Shibata Y., Hayatsu N., Sugahara Y., Shibata K., It
Konno H., Okazaki Y., Muramatsu M., Hayashizaki Y.;
"Normalization and subtraction of cap-trapper-selected cDNAs to
prepare full-length cDNA libraries for rapid discovery of new ge
Genome Res. 10:1617-1630(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q9D7E5 PRELIMINARY; PRT; 134 AA.
Q9D7E5;
Q9D7E6;
01-JUN-2001 (TrEMBLrel. 17, Created)
01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
Mus musculus adult male tongue cDNA, RIKEN full-length enriched
Mus musculus adult male tongue cDNA, PRIKEN full-length enriched
library, clone:2310011102 product:putative Ly-6 superfamily member,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Tongue;
MEDLINE=21085660; PubMed=11217851; DOI=10.1038/35055500;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Carninci P., Hayashizaki Y.; "High-efficiency full-length cDNA cloning."; Meth. Enzymol. 303:19-44(1999).
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STRAIN=C57BL/6J; TISSUE=Tongue;
MEDLINE=99279253; PubMed=10349636; DOI=10.1016/S0076-6879(99)03004-9;
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Mammalia; Eutheria;
   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  the RIKEN Genome Exploration Research Group Phase I & II Team; "Analysis of the mouse transcriptome based on functional annot 60,770 full-length cDNAs."; Nature 420:563-573(2002).
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STRAIN=C57BL/6J; TISSUE=Tongue;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "Functional annotation of a full-length mouse cDNA collection."; Nature 409:685-690\,(2001).
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Matches 31
                                                                                                                                                                       MEDLINE=95310346; PubMed=7790363; DOI=10.1083/jcb.129.6.1677; Brakenhoff R.H., Gerretsen M., Knippels E.M.C., van Dijk M., van Essen H., Weghuis D.O., Sinke R.J., Snow G.B., van Dongen G.A.M.S.; "The human E48 antigen, highly homology."
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Arzakawa T., Bono H., Carninci P., Fukuda S., Fukunishi Y., Furuno M.,
Hanagaki T., Hara A., Hayatsu N., Hiramoto K., Hiraoka T., Hori F.,
Imotani K., Ishii Y., Itoh M., Izawa M., Kasukawa T., Kato H.,
Kawai J., Kojima Y., Konno H., Kouda M., Koya S., Kurihara C.,
Katauyama T., Miyazaki A., Nishi K., Nomura K., Numazaki R., Ohno M.,
Okazaki Y., Okido T., Owa C., Saito H., Saito R., Sakai K.,
Sano H., Sasaki D., Shibata K., Shibata Y., Shinagawa A., Shiraki T.,
Sogabe Y., Suzuki H., Tagami M., Tagawa A., Takahashi F., Tanaka T.,
Tejima Y., Toya T., Yamamura T., Yasunishi A., Yoshida K., Yoshino M.,
Maramatsu M., Hayashizaki Y.,
     SEQUENCE FROM N.A. MEDLINE=98031741; Brakenhoff R.H., \( \)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q14210; Q43783; Q8TBD4; Q92933;
01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last Sequence update)
25-JAN-2005 (Rel. 46, Last annotation updat.
Lymphocyte antigen Ly-6D precursor (E48 ant
Name=LY6D; Synonyms=E48;
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EMBL; AJ31550; CAC85546.1; -.
MGD; MGI:1917524; Ly696e.
GO; GO:0016020; C:membrane; IEA.
GO; GO:0005024; F:transforming growth factor beta receptor ac.
InterPro; IPR000472; Activin receptor.
InterPro; IPR001526; LY6_UPAR.
                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDIINE-22074936; PubMed=12079290; DOI=10.1006/geno.2002.6794; Mallya M., Campbell R.D., Aguado B.; "Transcriptional analysis of a novel cluster of LY-6 family members in the human and mouse major histocompatibility complex: five genes with
                                                                                                                                               ThB, is a GPI-anchored molecule apparently cell-cell adhesion.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              many splice forms.";
Genomics 80:113-123(2002).
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                                                                                                                           Cell Biol.
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7; SM00134; LU; 1.
2NCE 134 AA; 14600 MW
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                                                                                                                        129:1677-1689(1995)
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        van
PubMed=9366413;
van Dijk M., Rood-Knippels.E.M.C.,
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                                                                                                                                                                             highly homologous to the murine Ly-6 antigen molecule apparently involved in keratinocyte
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRT;
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(E48 antigen).
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RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G., A Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D., A Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K., A Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K., A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F., A Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L., Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L., Scheetz T.E., Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C., A Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C., A Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C., A Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J., Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunarathe P.H., A Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W., Villalon D.K., Morley R.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W., Vallalon D.K., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W., A Pahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A., A Rahting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G., Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C., Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C., Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C., Schein J.E., Jones S.J.M., Warra M.A.;

Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E., Schein J.E., Jones S.J.M., Marra M.A.;

"Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences.";
       GO; GO:0005624; C:membrane fraction; TAS.
GO; GO:0007155; P:cell adhesion; TAS.
InterPro; IPR003632; LY-6 CD59.
InterPro; IPR001526; LY6 UDAR.
Pfam; PF00012; UDAR LY6; 1.
SMART; SM00134; LU; 1.
PROSITE; PS00983; LY6 UDAR; 1.
Antigen; Cell adhesion; Direct protein sequencing; GPI-anchor; Lipoprotein; Membrane; Multigene family; Signal.
SIGNAL
21
98
Lymphocyte antigen Ly-6D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on it use by non-profit institutions as long as its content is in no was modified and this statement is not removed. Usage by and for commercia entities requires a license agreement (See http://www.isb-sib.ch/announce or send an email to license@isb-sib.ch).
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EMBL; U66837; AAB07524.1; -.
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Submitted (SEP-1996) to the EMBL/GenBank/DDB.
                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; X82693; CAA58014.1; -. EMBL; Y12642; CAA73189.1; -.
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Protein Sci. 13:2819-2824(2004).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PubMed=15340161; DOI=10.1110/ps.04682504; Zhang Z., Henzel W.J.;
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SIMILARITY: Contains 1 UPAR/Ly6 domain.
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w; HGNC:13348; LY6D.
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RESULT 12
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Best Local S
Matches 37
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Matches 36
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InterPro; IPR003599; Ig.
InterPro; IPR007110; Ig-like.
SMAAT; SM00409; IG; 1.
PROSITE; PS50835; IG LIKE; 1.
PROSITE; PS50835; IG LIKE; 1.
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Q9NZJ1;
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Submitted (OCT-1999) to the
EMBL; AF195764; AAF35181.1;
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01-OCT-2003
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Mammalia; Eutheria;
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NSAVASHVAPAGILAAAATALTCLLP
                                      NRAPSSQT -- VGATTSLALGLGMLLP
                                                                            R---PQPGLEQIKLPGNPPVTLIHQHPACVAAHHCNQVETESVGDVTYPAHRDCYLGDLC
                                                                                                                    EDCFTGHGV----APGTGPVI----NKGCLRATSCGLEEPVSYRGVTYSLTTNCCTGRLC
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28.3%;
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25.3%; Pred. No. 0.2;
cive 13; Mismatches
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By similarity.
COLORNOR STREET ST
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                                                                                                                                                                                                                                                33;
                                                                                                                                                                                                                                                Gaps
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                                                                                                                         96
                                                                                                                                                                                                       44
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                                                                                351
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RESULT 13

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RP SEQUENCE FROM N.A.

RP SEQUENCE FROM N.A.

RC STRAIN=TVB/N; TISSUB=Salivary gland;

RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;

RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.24260389;

RX MISSUB RY D. COLINIA N. Scheet L., Scheet C.F., Bhat N.K., Casavant T.L., Scheet T.E.,

RX Richards S.F., Jordan H., Farmer A.A., Rubin G.M., Hong L., Farmer B.J., Lu X., Gibbs R.A.,

RX Willalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

RX Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

RX Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

RX Willalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

RX Willalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

RX Whitting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

RX Rahesy J. W., Green E.D., Dickson M.C.,

RX Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,

RX Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,

RX Raheseley R.W., Touchnan J.W., Green E.D., Dickson M.C.,

RX Raheseley R.W., Touchnan J.W., Green E.D., Dickson M.C.,

RX Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,

RX Rodriguez A.C., Schein J.E., Jones S.J.M., Marra M.A.;

RX Raheseley R.W., Touchnan J.W., Green E.D., Dickson M.C.,

RX Rodriguez A.C., Schein J.E., Jones S.J.M., Marra M.A.;

RX Raheseley R.W., Touchnan J.W., Green E.D., Dickson M.C.,

RX Raheseley R.W., Touchnan J.W., Green E.D., Dickson M.C.,

RX Raheseley R.W., Touchnan J.W., Green E.D., Dickson M.C.,

RX Raheseley R.W., Touchnan J.W., Green E.D., Dickson M.
MGD; MGI:96881; Ly6d.
InterPro; IPR003632; Ly-6 CD59.
InterPro; IPR001526; LY6 UPAR.
InterPro; IPR00127; LY6 UPAR.
Pfam; PF00021; UPAR LY6; 1.
ProDom; PD003128; Ly-6 CD59; 1.
SMART; SM00134; LU; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             P35459;
01-JUN-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-JUN-1994 (Rel. 29, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
Lymphocyte antigen Ly-6D precursor (Thymocyte
Name=Ly61; Synonyms=Ly61, Thb;
Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata; Craniata; Verte
Mammalia; Eutheria; Rodentia; Sciurognathi; M
                                                                                                                                                                       EMBL; X63782; CAA45317.1; -.
EMBL; L40419; AAA79249.1; ALT_INIT.
                                                                                                                                                                                                                                             This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the Ew the European Bioinformatics Institute. There are no restrues by non-profit institutions as long as its content modified and this statement is not removed. Usage by and entities requires a license agreement (See http://www.isb-sor send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
STRAIN=C57BL/6; TISSUE=Thymocyte8;
MEDLINE=3317863; PubMed=1401899;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gumley T.P., McKenzie I "Sequence and structure
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRAIN=BALB/c; TISSUE=Leukocyte; MEDLINE=95369850; PubMed=7642235;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gumley T.P., McKenzie I.F., Kozak C.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MOUSE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Isolation and characterization of B cell antigen (ThB) ";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Immunogenetics
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                                                                                                                                                                                                                                                                                                                                                                                                                             SIMILARITY: Contains 1 UPAR/Ly6 domain.
                                                                                                                                      A46528; A46528.
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                                                                                                                                                         L40419; AAA79249.1; A
BC025135; AAH25135.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     149:2615-2618(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         McKenzie I.F., Sandrin M.S.;
id structure of the mouse ThB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           42:221-224(1995)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STANDARD;
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                                                                                                                                                                                                                                                                                                         There are no restrictions ong as its content is in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sandrin M.S.; clones for the
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RESULT 14
E323_HUMAI
A FRANCE REPORTED TO THE PROPERTY OF THE PROPE
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Best Local :
          Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
Rlausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
Villalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,
Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
Pathern J.W., Soderson M., Madan A., Rodrigues S., Sanchez A.,
Pathern J.W., Standard R.C., Shevchenko Y., Bouffard G.G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               25-JAN-2005 (Rel.
25-JAN-2005 (Rel.
25-JAN-2005 (Rel.
Protein EPGP3023 I
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Antigen;
SIGNAL
CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                             "The secreted protein discovery initiative (SPDI), effort to identify novel human secreted and transme bioinformatics assessment."; Genome Res. 13:2265-2270(2003).
                                                                                                                                                                                                                                                                                                                                                         MEDLINE=22388257;
                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM
TISSUE=Brain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa;
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens (Human)
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(Rel. 46, Last e
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  precursor (UNQ3023/PRO9821)
                                                                                                                                                                                                                                                                                                                                                         PubMed=12477932; DOI=10.1073/pnas.242603899;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20
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31.4%;
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GPI-anchor amidated
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Removed in
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Dickson
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RESULT 15
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Best Local S
Matches 43
                                                                                                                                                                                 062680; Q9TR76; Q9XT94;
15-DEC-1998 (Rel. 37, Created)
15-DEC-1998 (Rel. 37, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
CD59 glycoprotein precursor (Membrane attack complex inhibition factor) (MAC-IP) (MAC-inhibitory protein) (MAC-IP) (Protectin).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                "Signal per
                  TISSUE=Aortic endothelium;
MEDLINE=98217182; PubMed=9558099;
Hinchliffe S.J., Rushmere N.K., Hanna S.M., Morgan
"Molecular cloning and functional characterization
of CD59: relevance to xenotransplantation.";
                                                                                                                                 Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for comentities requires a license agreement (See http://www.isb-sib.ch/an or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.; "Generation and initial analysis of more than 15,000 full-length and mouse cDNA sequences.";
                                                                                                                                                              Sus scrofa (Pig).
                                                                                                                                                                            Name=CD59;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Direct protein sequencing; SIGNAL 1 22
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                                                                                           SEQUENCE FROM N.A.
                                                                                                                  NCBI_TaxID=9823;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SUBCELLULAR LOCATION: Secreted. SIMILARITY: Contains 1 UPAR/Ly6 domain.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     peptide prediction based on analysis d cleavage sites."; Sci. 13:2819-2824(2004).
                                                                                                                                                                                                                                                                                                                                                                                                                               GTYMHC-GDDEDCFTGHGV-APGTGPVINKGCLRATSC---GLEEPVSYRGVTYSLITINC
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23
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134
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171 AA;
        levance to xenotransplantation.";
160:3924-3932(1998).
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171
141
134
                                                                                                                                 Chordata; Craniata; Vertebrata;
Cetartiodactyla; Suina; Suidae;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 99; DB
Pred. No. 0.2;
20; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     UPAR/Ly6.
W-linked (GlcNAc. . .) (Potential).
N-linked (GlcNAc. . .) (Potential).
1BAEEE9CD18F5470 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Protein EPGP3023
                                                                                                                                                                                                                                                                           PRT;
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0.2;
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                                  B.P.;
of the
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XX MEDLINE=95181826; PubMed=7533195; DOI=10.1016/0022-1759(94)00288-8;

RA van den Berg C.W., Harrison R.A., Morgan B.P.;

RT vapid method for the isolation of analogues of human CD59 by

RT vapid method for the isolation to pig CD59.";

RT preparative SDS-PAGE: application to pig CD59.";

RL J. Immunol. Methods 179:223-231(1995).

CC complex (MAC) action. Acts by binding to the C8 and/or C9 complements of the assembling MAC, thereby preventing complements of the multiple copies of C9 required for complete C6 incorporation of the multiple copies of C9 required for complete C7 incorporation of the osmolytic pore.

CC complex LOCATION: Attached to the membrane by a GPI-anchor. C7 SUBCELLUTAR LOCATION: Attached to the membrane by a GPI-anchor. C8 SUBCELLUTAR LOCATION: Attached to the membrane by a GPI-anchor. C8 SUBCELLUTAR LOCATION: Attached to the membrane by a GPI-anchor. C9 in lung and spleen, heart and skeletal muscle). Highest levels in lung and spleen, lowest levels in liver and skeletal muscle.
                                                                                                                                                                                  Query Match
Best Local S
Matches 33
                                                                                                                CONFLICT
CONFLICT
                                                                                                                                                                    DOMAIN
DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
CARBOHYD
                                                                                                       SEQUENCE
                                                                                                                                                        TIPID
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                                                                                                                                                                                                                                                                                         Lipoprotein;
SIGNAL
                                                                                                                                                                                                                                                                                                                                         ProDom; PD003128; LU; SMART; SM00134; LU;
                                                                                                                                                                                                                                                                                                                                                                 InterPro; IPR001526; LY6 UPAR. Pfam; PF00021; UPAR LY6; 1.
                                                                                                                                                                                                                                                                                                                                                                                            EMBL; AF020302; AAC67231.1; -. EMBL; AF058328; AAD39837.1; -. HSSP; P13987; 1ERG.
InterPro; IPR003632; Ly-6_CD59.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            entities requires a license agreement (S or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This SWISS-PROT entry is copyright. It is produced through a collaboratic between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on it use by non-profit institutions as long as its content is in no was modified and this statement is not removed. Usage by and for commercia
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                                                                                                                                                                                                                                                                                                                Antigen;
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InterPro;
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SEQUENCE OF
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 activity."
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bothwell A.L.M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE=99023683; PubMed=9808497;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TISSUE=Aortic endothelium;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "Structure/function
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 in lung and spleen, lowest levels in liver and SIMILARITY: Contains 1 UPAR/Ly6 domain.
 8
                         N
                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                      PD003128;
                           VLCWLLLLVMALPPGTTGVKDCVFCELTDSMQC----PG----TYMHCGDDED-CFTGH
                                                                                                                                                                                                                                                                                                               Direct protein
                                                                                                                                                                                                                                                                                                                               PS00983;
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                                                              14.4%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N.A.,
                                                                                                                                                                                                                                                                                                                 sequencing; Glycoprotein;
                                                                                                     MW;
                                                   15;
                                                                                                               Score 98.5; DB
Pred. No. 0.16;
5; Mismatches
 -- AVLCHLGHSLQCYNCINPAGSCTTAMNCSHNQDACIFVE
                                                                                                                                                                                                                                                                             CD59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AND FUNCTION
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                                                                                                                                                                                                                                                                           glycoprotein
                                                                                                                                                                                                                                                               in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          noved. Usage by and for commercial
(See http://www.isb-sib.ch/announce/
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                                                     Indels
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                                                                                                                                                                                                                                                               similarity).
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                                                   27;
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52

GVAPGTGPVINKGCLRATSCGLEEPVSYRGVTYSLTTNCCTGRLCNRAPSSQTVGATTSL

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Db 56 AVPEKT----YYQCWRFDECNFDF-ISRNLAEKKLKYNCCRKDLCNKSDATISSGKTALL 110

Qy 112 AL 113

Db 111 VI 112

Search completed: April 15, 2005, 14:04:11

Job time : 193 secs
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GenCore version 5.1.6 Copyright (c) 1993 - 2005 Compugen Ltd.

OM protein - protein search, using sw model

Run on: April 15, 2005, 14:00:50; Search time 16 Seconds (without alignments) 745.680 Million cell updates/sec

US-10-809-654-16

Title:
Perfect score:
Sequence: 684 1 MVLCWLLLLVMALPPGTTGV......VGATTSLALGLGMLLPPRLL 124

Scoring table: BLOSUM62 Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database :

pIR 79:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	თ	₅	4.	ω	N	,	No.	pagn 1+
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	509	134	61	2180	128	5376	83	513	503	312	61	589	516	509	328	1620	1391	1111	330	327	222	222	4543	240	1101	130	127	128	240	Length	
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	A45992	148639	N1NJ4E	T29764	RWHU59	T42215	S19951	S28358	A49432	T31834	N1NJ3E	JC7570	A48678	159576	S42152	T27283	T20406	T26972	JN0561	A55356	B55356	B41643	A53102	T25641	T16840	I54553	A46528	A57321	A39842		
	activin A receptor	neurotoxin homolog	short neurotoxin 4	hypothetical prote	surface glycoprote	zonadhesin - mouse	ס	prespore vesicle p	activin receptor-1	hypothetical prote	short neurotoxin 3	Delta-4 protein -	activin receptor I	transforming growt				ק	urokinase-type pla	urokinase-type pla	urokinase-type pla	urokinase-type pla	Φ.			gene ThB protein -	phosphatidylinosit	E48 antigen precur	insulin-like growt	ription	

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10.5	10.5	10.5	10.6	10.6	10.6	10.6	10.7	10.7	10.7	10.8	10.8	10.8	10.8
559 1321	153	249 496	1252	603	134	82	161	158	81	509	248	136	122
21	N	NN	N	N	N	N	N	N	N	N	N	N	N
A29941 JE0352	A34132	T31837 T41114	836016	S28941	A25708	JC5892	A46189	B34132	S27366	A49664	T31841	I49013	PN0622
t-plasminogen acti mucin MUC5B, trach	=	hypothetical prote uroporphyrin methy	oocyst wall protei	coagulation factor	Ly-6.1 protein pre	cobrotoxin b - Chi	vasotocin - Pacifi	vasotocin / neurop	metallothionein E(activin type I rec	hypothetical prote	thymic shared anti	insulin-like growt

ALIGNMENTS

 A;Status: preliminary A;Molecule type: protein A;Residues: 'AA',30-31,'H',33-54,'QXG' <zap></zap>	10 Cumor nyboglycemia. A;Reference number: A35803; MUID:90368661; PMID:1697583 A:Accession: C35803	A; Title: Isolation from adult human serum of four insulin-like growth factor (IGF) bindir	R;Zapf, J.; Klefer, M.; Merryweather, J.; Masiarz, F.; Bauer, D.; Born, W.; Fischer, J.A.	A;Regidues: 28'A',30-39 <mar></mar>	A;Reference number: A35470; MUID:90154107; PMID:2154495 A;Accession: A35470	A, Tille: Purification and proporties of a novel insulin-like growth factor-II binding pro	R;Martin, J.L.; Willetts, K.E.; Baxter, R.C. T Biol Chem 265 4124-4130 1990	A;Residues: 'XX',30-31,'P',33-39,'X',41-42 <and> A:Experimental source: cell line V-2</and>	A;Accession: PH0144 A;Molecule type: protein	Biochem. Biophys. Res. Commun. 176, 213-218, 1991 A.Title: A novel human insulin-like growth factor binding protein secreted by osteoblast	A;Cross-references: GB:M69U54; NIU:GIB3B33; PIUN:AAABBU/U.1; FIU:GIB3B34 R;Andress, D.L.; Birnbaum, R.S.	A;Scarus: preliminary A:Molecule type: mRNA	A,Accession: B23734	A;Title: Isolation and molecular cloning of insulin-like growth factor-binding protein-6. A;Reference number: A23734; MUID:92049376; PMID:1719383	A;Cross-references: UNIPROT:P24592; GB:M62402; NID:g184813; PIDN:AAB06187.1; PID:g184814	A;Rolecule type: mRNA A;Rosidues: 1-240 <kie></kie>	,	J. Biol. Chem. 266, 9043-9049, 1991 A:Title: Identification and molecular cloning of two new 30-kDa insulin-like growth facto	C;Species: Homo sapiens (man) C;Date: 20-Mar-1992 #sequence revision 31-Dec-1995 #text change 09-Jul-2004	insulin-like growth factor-binding protein 6 precursor - human N;Alternate names: IGFBP-6; insulin-like growth factor II-binding protein	RESULT 1 A39842

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A; Map
C; Supe
C; Keyw
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C;Accession: A57321
C;Accession: A57321
R;Brakenhoff, R.H.; Gerretsen, M.; Knippels, E.M.C.; van Dijk, M.; van Essen, H.;
J. Cell Biol. 129, 1677-1689, 1995
A;Title: The human E48 antigen, highly homologous to the murine Ly-6 antigen ThB,
A;Reference number: A57321; MUID:95310346; PMID:7790363
A;Accession: A57321
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                phosphatidylinositol-anchored B-cell
                                   A46528
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A;Note: parts of this sequence, including the amino end of the mature protein, were conf
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Molecule type: mRNA
A; Residues: 1-128 <BRA>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C;Date: 08-Dec-1995 #sequence_revision 16-Aug-1996 #text_change 09-Jul-2004
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N;Alternate
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Keywords: glycoprotein;
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thymocyte B-cell antigen
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                  antigen
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   n ThB
ThB
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<SIG>
                precursor -
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gene ThB protein - mouse
() Species: Mus musculus (house mouse)
() Date: 02-Aug-1996 #sequence_revision 02-Aug-1996
() Accession: I5455
R; Gumley, T.P.; McKenzie, I.P.; Sandrin, M.S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R;Gumley, T.P.; McKenzie, I.F.; Sandrin, M.S.
Immunogenetics 42, 221-224, 1995
A;Title: Sequence and structure of the mouse ThB gene.
A;Reference number: I54553; MUID:95369850; PMID:7642235
A;Accession: I54553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Gene: Thb
A;Gene: Thb
A;Map position: 15
C;Superfamily: Ly-6 antigen; Ly-6 homology
C;Superfamily: Ly-6 arboxyl end; glycoprotein; lipoprotein; phosphatidyli:
C;Keywords: blocked carboxyl end; glycoprotein color cy.
Keywords: blocked carboxyl end; glycoprotein color cy.
Keywords: blocked carboxyl end; glycoprotein color cy.
F;21-20/Domain: signal sequence #status predicted cyrps
F;21-93/Product: phosphatidylinositol-anchored B-cell antigen ThB #status
F;21-93/Product: phosphatidylinositol-anchored #status predicted cyrps
F;94-127/Domain: carboxyl-terminal propeptide #status predicted cyrps
F;93/Modified site: GPI-anchor ethanolamine amidated carboxyl end (Asn) (i
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A;Cross-references: UNIPROT:P35459; GB:X63782; GB:S46666; NID:g288264; A;Cross-references: UNIPROT:P35459; GB:X63782; GB:S46666; NID:g288264; A;Experimental source: C57BL/6, spleen cells, thymocytes
A;Note: sequence extracted from NCBI backbone (NCBIP:116104)
C;Comment: This 15K GPI-anchored surface antigen is found on B thymocyte;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C;Species: Mus musculus (house mouse)
C;Date: 18-Jun-1993 #sequence_revision 16-Aug-1996 #text_c
C;Accession: A46528
R;Gumley, T.P.; McKenzie, I.F.; Kozak, C.A.; Sandrin, M.S.
J. Immunol. 149, 2615-2618, 1992
                                                                                                                                                                                                                                                                                                                                        A;Introns: 21/1; 54/1
C;Superfamily: Ly-6 antigen; Ly-6 homology
F;24-103/Domain: Ly-6 homology <LY6>
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A;Molecule type: DNA
A;Residues: 1-130 <RES>
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Date: 18-Jun-1993 #sequence_revision 16-Aug-1996 #text_change 09-Jul-2004
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--ANSCTSDYSQQGHVSSGSEVTQCCQTDLCNERLVSAAPGHALLSSVTLGLATSLSL
                                                                                                                 LVLLVLAVATSPAWALRCHVC--TNSANCKNPQVCPSNFYFCKTVTSVEPLNGNLVRKEC
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31.4%; Pred. No. 0.039;
rative 12; Mismatches
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                                                          AP----SSQTVGATTSLAL 113
                                                                                                                                                                                                                                                                                             Length 130;
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A; Map position: 1
A; Introns: 26/1; 51/1; 195/1
A; Introns: 26/1; 51/1; 195/1
C: Superfamily: Caenorhabditis elegans hypothetical protein F48G7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Nolecule type: DNA
A; Nolecule type: DNA
A; Residues: 1-1101 <GEI>
A; Cross-references: UNIPROT: Q22378; EMBL: U39644; NID: g1049339; PID: g1049343; PIDN: AAA803
A; Cross-references: Grrain Bristol N2
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submitted to the EMBL Data Library, February 1997
A;Description: The sequence of C. elegans cosmid C46Hll
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          hypothetical protein C46H11.7 - Caenorhabditis elegans
C;Species: Caenorhabditis elegans
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 09-Jul-2004
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A;Experimental source: strain Bristol N2; clone C46H11
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RESULT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Reference number: Z20061
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C; Date: 20-Sep-1999 #sequence_rev
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C;Species: Caenorhabditis elegans
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1B: 93/2; 152/2; 191/3; 209/2; 283/3; 303/1; 399/3; 421/1; 440/1;
                                                               153
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                                                               TARASLCN-
                                                                                                        CLRATSCGLEEPVSYRGVTYSLTTNCCTGRLCNRAPSSQTVGATTS 110
                                                                                                                                                 STGVSDCPALAYLCNDTTTYYTVMTQQCPRTCGRCNSTTTSSTSCADLVNPSTG--VSDC 152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PGTSQCQNKVCCQQTDTLNLNNLIQHQAPLCPGSNVPPLGSC--NEQCPQYSACTPGLGC 449
                                                                                                                                                                                            TTGVKDC----VFCELTD-----SMQCPGTYMHCGDDEDCFTGHG--VAPGTGPVINKG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -PV-INK---GCLRATSCGLEEPVSYRGVTYSLTTNCCTGRLCN-----RAPSSQ 103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PGTTGVKDCVFCELTDSMQ------CPGTYM----HCGDDEDCFTGHGVAPGTG-
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                                                                                                                                                                                                                                   12.3%; Score 84; DB 2; Length 240; 30.2%; Pred. No. 2.1; Live 10; Mismatches 42; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           12.5%; Score 85.5; DB 2; Length 1101; 25.7%; Pred. No. 5.7;
                                                               -DSVYYAVMTQQCP-RTCGRCNSSSTVTSSSS
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F;117-150/Domain: EGF homology <EG1>
F;116-190/Domain: EGF homology <EG2>
F;206-241/Domain: LDL receptor YWTD-containing rep F;242-283/Domain: LDL receptor YWTD-containing rep F;242-283/Domain: LDL receptor YWTD-containing rep F;242-386/Domain: LDL receptor YWTD-containing rep F;337-380/Domain: LDL receptor YWTD-containing rep F;337-380/Domain: LDL receptor YWTD-containing rep F;423-470/Domain: LDL receptor YWTD-containing rep F;423-470/Domain: LDL receptor YWTD-containing rep F;616-661/Domain: LDL receptor YWTD-containing rep F;616-661/Domain: LDL receptor YWTD-containing rep F;616-712/Domain: LDL receptor YWTD-containing rep F;133-734/Domain: LDL receptor YWTD-containing rep F;153-797/Domain: LDL receptor YWTD-containing rep F;153-997/Domain: LDL receptor YWTD-containing rep F;1605-840/Domain: LDL receptor ligand-binding rep F;934-999/Domain: LDL receptor ligand-binding rep F;934-999/Domain: LDL receptor ligand-binding rep
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A; Residues: 1-4543 <NIM-
A; Residues: 1-4543 <NIM-
A; Residues: 1-4543 <NIM-
A; Cross-references: UNIPROT: P98157; GB: X74904; NID: g438006; PIDN: CAA52870.1; PID: g438007
A; Cross-references: UNIPROT: P98157; GB: X74904; NID: g438006; PIDN: CAA52870.1; PID: g438007
C; Complex: The alpha-2-macroglobulin receptor complex consists of noncovalently-associated protein.
C; Superfamily: alpha-2-macroglobulin receptor; EGF homology; LDL receptor ligand-binding C; Superfamily: alpha-2-macroglobulin receptor; EGF homology; LDL receptor ligand-binding C; Superfamily: beta-hydroxyaspartic acid; calcium binding; glycoprot C; Superfamily: beta-hydroxyaspartic acid; calcium binding; glycoprot
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N;Alternate names: CD91; LDL receptor-related protein 1; low density lipoprotein
C;Species: Gallus gallus (chicken)
C;Date: 04-Sep-1998 #sequence_revision 04-Sep-1998 #text_change 09-Jul-2004
C;Accession: A53102
                                                                                                                                 F;2102-2147/Domain:
F;2155-2190/Domain:
F;2195-2237/Domain:
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                F;2247-2288/Domain:
F;2338-2382/Domain:
F;2383-2423/Domain:
                                                                                                                                                                                                                                                  F;1973-2015/Domain:
F;2016-2059/Domain:
F;2060-2101/Domain:
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in: LDL receptor ligand-binding repeat homology <LDLN>
in: EGF homology <EGS>
in: EGF homology <EGS>
in: LDL receptor YWTD-containing repeat homology <YW12>
in: LDL receptor YWTD-containing repeat homology <YW13>
in: LDL receptor YWTD-containing repeat homology <YW14>
in: LDL receptor YWTD-containing repeat homology <YW14>
in: LDL receptor YWTD-containing repeat homology <YW16>
in: LDL receptor YWTD-containing repeat homology <YW17>
in: LDL receptor YWTD-containing repeat homology <YW19>
in: LDL receptor YWTD-containing repeat homology <YW21>
in: LDL receptor YWTD-containing repeat homology <YW21>
in: LDL receptor YWTD-containing repeat homology <YW22>
in: LDL receptor YWTD-containing repeat homology <YW23>
in: LDL receptor YWTD-containing repeat homology <YW27>
in: LDL receptor YWTD-containing repeat homology <YW28>
in: LDL receptor YWTD-containing repeat homology <YW27>
in: LDL receptor YWTD-containing repeat homology <YW28>
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receptor ligand-binding repeat homology <LDL4>
receptor ligand-binding repeat homology <LDL5>
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Y <YW03>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      < YW09>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         < YW04 >
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F;4421-4443/Domain: transmembrane #status predicted <TMM'>
F;4421-4443/Domain: intracellular #status predicted <INT>
F;4444-4543/Domain: intracellular #status predicted <INT>
F;116,138,187,276,359,448,731,926,1048,1152,1153,1193,1216,1305,1509,1556,1573,1614,1643
3485,3659,3786,3837,3952,4074,4124,4178,4278/Binding site: carbohydrate (Asn) (covalent)
F;168,2995/Modified site: crythro-beta-hydroxyasparagine (Asn) #status predicted
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Ç;Species: Mus
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Best Local
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LDL receptor YWTD-con
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EGF homology <EG18>
EGF homology <EG19>
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LDL receptor YWTD-containing repeat homology <YW41>
alpha-2-macroglobulin receptor 85K chain #status predicted 85K chain extracellular #status predicted <EXT>
LDL receptor YWTD-containing repeat homology <YW40>
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<YW36>
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RESULT 10
A55356
                                                   N;Alternate names: urokinase-type plasminogen C;Species: Mus musculus (house mouse) C;Date: 06-Feb-1995 #sequence revision 06-Feb-C;Accession: A55356; A41643 R;Suh, T.T.; Nerlov, C.; Dano, K.; Degen, J.L. J. Biol. Chem. 269, 25992-25998, 1994 A;Title: The murine urokinase-type plasminogen
                 A; Reference number: A55356; A; Accession: A55356
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A;Title: The murine urokinase-type plasminogen activator A;Reference number: A55356; MUID:95014420; PMID:7929309 A;Accession: B55356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C;Date: 06-Feb-1995 #sequence_revision 06
C;Accession: B55356
R;Suh, TT; Nerlov, C:; Dano, K.; Degen,
J. Biol. Chem. 269, 25992-25998, 1994
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C;Species
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C;Accession: B41643
R;Kristensen, P.; Eriksen, J.; Blasi, F.; Dano, K.
J. Cell Biol. 115, 1763-1771, 1991
A;Title: Two alternatively spliced mouse urokinase receptor A;Reference number: A41643; MUID:92098587; PMID:1661735
A;Accession: B41643
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A;Molecule type: mRNA
A;Residues: 1-222 <KRI>
A;Cross-references: UNIPROT:P35457; GB:X62701; NID:g53277; PIDN:CAA44575.1; PID:g53278
F;24-108/Domain: Ly-6 homology <LY6>
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A; Residues: 1-222 < SUH >
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28.7%;
                                       se-type plasminogen activator
MUID:95014420; PMID:7929309
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Pred. No. 4.1;
10; Mismatches
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Pred. No. 4
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A; Residues: 1-30 CREUS

A; Cross-references: GB:S70635; NID:g545770; PIDN:AAB30120.1; PID:g545771

A; Cross-references: GB:S70635; NID:g545770; PIDN:AAB30120.1; PID:g545771

A; Cross-references: GB:S70635; NID:g545770; PIDN:AAB30120.1; PID:g545771

A; Cross-references: GB:S70635; NID:g545770; PIDN:AAB30120.1; Ly-6 homology

C; Keywords: blocked carboxyl end; glycoprotein; lipoprotein; phosphatidylinositol

F; L-20/Domain: signal sequence #status predicted <SICs

F; 21-300/Product: urokinase-type plasminogen activator receptor #status predicted

F; 21-300/Product: urokinase-type plasminogen activator receptor #status predicted

F; 113-201/Domain: Ly-6 homology <LY6B>

F; 113-201/Domain: Ly-6 homology <LY6B>

F; 209-296/Domain: Ly-6 homology <LY6C>

F; 301-330/Domain: Ly-6 homology <LY6C>

F; 301-330/Domain: carboxyl-terminal propeptide #status predicted <CPRO>

F; 28, 72, 179, 189, 279/Binding site: carbohydrate (Asn) (covalent) #status predicted

F; 28, 72, 179, 189, 279/Binding site: carbohydrate (Asn) (covalent) #status predicted

F; 28, 72, 179, 189, 279/Binding site: carbohydrate (Asn) (covalent) #status predicted

F; 28, 72, 179, 189, 279/Binding site: carbohydrate (Asn) (covalent) #status predicted
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A;Cross-references: UNIPROT:P35456; GB:U12235; NID:g555809; PIDN:AAB60484.1; A;Cross-references: UNIPROT:P35456; GB:U12235; NID:g555809; PIDN:AAB60484.1; A;Cristensen, P.; Eriksen, J.; Blasi, F.; Dano, K.

J. Cell Biol. 115, 1763-1771, 1991

J. Cell Two alternatively spliced mouse urokinase receptor mRNAs with differ A;Reference number: A41643; MUID:92098587; PMID:1661735

A;Accession: A41643
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A;Title: Molecular cloning of cDNA for the bovine urokinase-type plasminogen A;Reference number: I46977; MUID:94167671; PMID:8122188
A;Accession: I46977
A;Status: translated from GB/EMBL/DDBJ
A;Molecule type: mRNA.
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Gene 125, 177-183, 1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         urokinase-type plasminogen activator receptor precursor - bovine C;Species: Bos primigenius taurus (cattle) C;Date: 31-Dec-1993 #sequence revision 06-Sep-1996 #text_change 09-Jul-2004 C;Accession: JN0561; I46977
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C;Genetics:
A;Introns: 20/1; 57/1; 105/1; 157/1; 202/1; 251/1
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A; Residues: 1-327 < KRI>
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                                                                                                                                                                                    gite:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                               Conservative
                                                                                                                                                                                 GPI-anchor ethanolamine amidated
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28.7%;
                                                                                                    11.8%;
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                                                                             Score 80.5; Di
Pred. No. 5.7;
11; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 80.5;
Pred. No. 5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Kojima,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GB:L03545; NID:g163802; PIDN:AAA30802.1; E.P.; Johnstone, E.M.; Bang, N.U.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       s.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 2;
                                                                                                                            DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               42;
                                                                               40;
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                                                                                                                                                                                 carboxyl end
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                                                                                                                            Length 330;
                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    its receptor: cloning
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phosphatidylinositol
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                                                                                                                                                                                    (Gly)
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                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       W.D.
                                                                                                                                                                                    (in mature
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                                  57
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T26972
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
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                                                                                                                                                                                                                                                                                                                                                                                         A;Gene: CESP:E01G6.1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                    Query Match
Best Local S
Matches 28
                                                                                                                                                                                                                                                                                                                                                                                                                      Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
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Best Local
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                                  876
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A; Nicatus, F----
A; Molecule type: DNA
A; Residues: 1-1391 <WIL>
A; Cross-references: UNIPROT: Q19021;
A; Cross-references: UNIPROT: Q19021;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               hypothetical protein E01G6.1 - Caenorhabditis elegans C;Species: Caenorhabditis elegans C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #tc C;Accession: T20406 R;Lloyd, C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Residues: 1-1111 <WIL>
A;Cross references: UNIPROT:Q9XWD6;
A;Experimental source: clone Y47H9C
C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  hypothetical protein Y47H9C.4 - Caenorhabditis elegans C;Species: Caenorhabditis elegans C;Decies: Choct-1999 #sequence_revision 15-Oct-1999 #te: C;Accession: T26972 #R;Harris, B. submitted to the EMBL Data Library, October 1998 A;Reference number: Z20293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Map position: 1
A; Introns: 50/2; 84/2;
C; Superfamily: ankyrin
                                                                                                                                                                                                                                                        A;Map position: X
A;Introns: 44/1; 84/3; 175/1; 389/2; 423/1; 501/1; 1358/1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         submitted to the EMBL Data Library, A; Reference number: Z19270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A,Status: preliminary; translated from A,Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                            A;Status: preliminary; translated
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     661 LSCPPGSSG----IHCE----HNCPAGSYGDGCQQVCSCADGHGCDPTTGECICEPGYHG
                                          67 RATSCGLEEPVSYRGVTY-----
                                                                                                                           17 TTGVKDCVFCELTDSMQCP------GTYMHC-GDDEDCFTGHGVAPGTGPVINKGCL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11 MALPPGTTGVKDCVFCELTDSMQCP-GTYMH-CGDDEDCFTGHGVAPGTGPVI-----N
                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
SGSGMGVSQPQCLRGVAYVNPATNQRQFCSPMKADCPAGYTCFESDQSSQFICCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KGCLR----ATSCGLEEPVSYRGVTYSLTTNCC-----TGRLCNRAPSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NEMNVVRKGCTHPDK--TNRSMSYRAADQIITLSETVCRSDLCNK 98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LLLLVYTYIPGSWGLR-CLQCENTTSCSV---
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    --GPVINKGCLRATSCGLEEPVSYRGV--TYSLTTNCCTGRLCNR
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                                                                                                                                                                        Conservative
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repeat
                                                                                     CTNTNVIRCPSGSSVFBYGGRPLACPAGSNKCPQGYSCMPSTNPQHHLCCS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             11.8%;
28.3%;
                                                                                                                                                                                          11.8%; Score 80.5;
24.3%; Pred. No. 1
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                                                                                                                                                                   14;
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Pred. No. 10
                                                                                                                                                                                                                                                                                                                                                                    EMBL: Z69717; PIDN: CAA93531.1; GSPDB: GN00028; CESP: E03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                February 1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL:AL032657; PIDN:CAA21739.1;
                                                                                                                                                                        Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                   GB/EMBL/DDBJ
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                                        ----SLTTNCCTGRLCNRA-PSSQTVGAT 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    797/1; 851/1;
                                                                                                                                                                                                              DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       B
                                                                                                                                                                        48;
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                                                                                                                                                                                                                Length 1391;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 1111;
                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
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                                                                                                                                                                        25;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             29;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16-Aug-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         765
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                                                                                                                                                                        Gaps
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RESULT 15
S42152
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C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #
C;Accession: T27283
R;Ainscough, R.
submitted to the EMBL Data Library, September 1999
A;Reference number: Z20336
A;Accession: T27283
A;Actatus: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                             A;Molecule type: mRNA
A;Residues: 1-94,'C',96-328 <RA2>
A;Residues: E94,'C',96-328 <RA2>
C;Superfamily: urokinase-type plasminogen activator receptor; Ly-6 homology
F;118-206/Domain: Ly-6 homology <LY6>
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A;Cross-references: UNIPROT:P49616; EMBL:X71899; NID:g452782; PIDN:CAA50718.1; PID:g4527
A;Accession: S41085
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               R;Rabbani, S.A.; Rajwans, N.; Achbarou, A.; Murthy, K.K.; Goltzman, D. FEBS Lett. 338, 69-74, 1994
A;Title: Isolation and characterization of multiple isoforms of the rat urokinase recept A;Reference number: S41085; MUID:94139899; PMID:8307160
A;Accession: S42152
A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        urinary plasminogen activator receptor - rat
C;Species: Rattus norvegicus (Norway rat)
C;Date: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 09-Jul-2004
C;Accession: S42152; S41085
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Introns: 77/1; 116/1; 198/1; 282/1; 365/1; 425/1; 466/1; 548/1; 559/1; 601/1; 625/1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Gene: CESP:Y64G10A.f
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        hypothetical protein Y64G10A.f - Caenorhabditis elegans
                                                                                                                                                                                                                                                                          Query Match
Best Local S
Matches 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Species: Caenorhabditis elegans
,Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 15-Oct-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1047 LFGAGCKGICSC-----QNGATCDSVTGSCECRPGWRGKKCDR 1084
320 RL 321
                                           122 RL 123
                                                                                        260 VRGCATASWCQGSHVADSFQTHVNLSISCCNGSGCNRPTGGAPGPGPAHLILIASLLLTL 319
                                                                                                                                                                                 203 VLDLQSLPPNGF---QCYSCEGNSTFGCSYEESSFIDCRGPMNQCLEATGLDVLGNRSYT 259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       999 ACAPGTFG-KDCSKKCDCADGMHCDPSDGECICPPGKKGHKC--DETCDSG-----
                                                                                                                                   62 NKGCLRATSCGLEEPVSYRGVTYSLTTNCCTGRLCNRAPSSQTVGATTSLALGLGMLLPP 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60 VINKGCLRATSCGLEEPVSYRGVTYSLTTNCC-----TGRLCNR 98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  12 ALPPGTTGVKDC-VFCELTDSMQC-----PGTYMH-CGDDEDCFTGHGVAPGTGP 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                31; Conservative
                                                                                                                                                                                                                            7 LLLVMALPPGTTGVKDCVFCELTDSMQC---PGTYMHC-GDDEDCFTGHGV-APGTGPVI 61
                                                                                                                                                                                                                                                                            30;
                                                                                                                                                                                                                                                                                                  Similarity
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                                                                                                                                                                                                                                                                       11.4%; Score 78; DB 2; Length 328; 24.6%; Pred. No. 9.5; tive 14; Mismatches 70; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; Score 78.5; DB; Pred. No. 33; 5; Mismatches
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